

BUILDING TODAY

THE OFFICIAL MAGAZINE OF THE REGISTERED MASTER BUILDERS ASSOCIATION

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JUNE 2014

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INSIDE: RMBA CONFERENCE

NEWS, PICTURES AND
COMMENTS
FROM THE RMBA'S
ANNUAL CONFERENCE
IN TAUPO

ALSO INSIDE:

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FROM THE EDITOR

The RMBA's first conference since the Association merger was a positive feel-good gathering which reflected an organisation that is on a sound footing and heading in the right direction. Go to pages 10-12 for news and pics from the event held in Taupo recently.

Mike Fox's first column on over-cladding last month has attracted a lot of interest — and a response from NZ Institute of Building Surveyors members. See pages 16 to 18.

Meanwhile, Don Bunting's column on what he sees as the deteriorating relationships among members of the design and construction industries is sure to raise some eyebrows.

And remember to go into our draw to win a Showerdome on page 47.

Andrew Darlington — Editor

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A smart business is better business

Chief's Chat

By CEO Warwick Quinn

It has been a long time in the making but I am delighted to announce the launch of the Trades Business Academy.

There is a brochure to members included as part of this edition of *Building Today* that provides some further information. Please have a good read of it and think seriously about what the Academy can offer you.

So what is the Trades Business Academy all about and why have we launched it?

Well, construction is one of the most (if not the most) complex businesses to run.

Business owners have to deal with a confusing and complex regulatory environment, multiple suppliers, contractors, enforcement agencies, owners and staff members.

They have to manage and account for many hundreds of thousands, and in many cases, millions of dollars from multiple sources, and project manage many jobs at once through difficult conditions that are subject to weather, unforeseen circumstances, increased prices and sometimes stressed home owners.

The relationship with your client isn't a five minute transaction like buying a pair of jeans, but a long one that is subjected to all manner of stresses and strains throughout that period.

All too often we are ill-equipped to manage the transition from builder to business owner — from no longer being on the tools but running a complex business. Too often builders dive in and learn the hard way, when they should be taking the time to understand how to operate a building company successfully.

As 90% of all funds going through a building business is someone else's money, all it takes is a slowdown in cashflow and things can get problematic very quickly if the business has insufficient capital.



are better prepared as business people, as these sorts of cycles are part and parcel of managing your business.

However, the construction sector is not academic in nature. There are a plethora of business courses available but very few attend them, and you cannot learn business in a weekend or through a short course.

So we have developed a customised small business programme that has been written specifically with the tradesperson in mind. The course covers all the elements of how to run a successful business, and is full of examples that a tradesperson can relate to.

It is practical and linked to our members' web site so you can access contracts, guarantees and other information to help you.

It is designed so you can apply what you learn to your own business so you can understand how the theory works in practice — for example, you can develop a marketing or business plan for your business. We have mentors and support throughout the course to assist you.

We have partnered with Master Electricians, the Skills Organisation and the Open Polytechnic, and on completion of the programme you will obtain a Level 4 Certificate in Small Business.

There are three modules, each encompassing four courses, and as long as you do two courses a year you can continue to do the certificate. We have structured it in such a way that if you would only like to do some of the courses, you can.

The programme sits on the NZQA framework, and I would strongly recommend it to anyone who is serious about running a construction business well, as it will save you considerable stress in the long run, free up your time and make you more profitable.



There is also a lot of work and energy being expended on trying to stop the boom bust nature of the construction sector, but I personally think that is almost impossible to achieve as we are exposed to the cycles of the wider economy which, in turn, is influenced by the global economy.

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Education is the key

By RMBA president
John Macdonald

To those of you who were at the Registered Master Builders conference in Taupo recently, I thank you for your vote of confidence in allowing me to represent you as president of the RMBA.

I have been on the RMB Board for the past five years, and have not only had the great pleasure of working with my fellow Board members, but have benefited hugely from their vast experience.

I would like to acknowledge the contribution that outgoing president David Fabish has made, in particular working tirelessly over the past two years on the Association merger, and laying the foundations for the organisation to go forward. We are privileged that he continues as a Board member for the next three years.

In addition, I would like to thank Richard Carver



for his outstanding contribution over the past 10 years. The Board recognises that his vast knowledge, business acumen and experience in the construction industry helped focus and keep the Board on track during this momentous process of change. We wish him and wife Rebecca well for the future.

I would also like to welcome the three new

Board members — Gordon Boswell, Kerry Archer and Darrell Trigg. We look forward to working with them.

My goal over the next two years is to meet as many of you as I can and to hear your views, so that you feel you have a representative voice on the Board.

I believe education is the key to the success, as well as to the longevity, of the industry. Therefore, my focus will be to encourage builders to take full advantage of the training modules already available to them through the RMBA, and the many other opportunities to upskill themselves and their workforce.

The most important task facing us right now is to unite as one organisation for the greater good of our members. Our purpose is to deliver quality services and tools which enable our members to grow their businesses, and for the industry as a whole.

I look forward to representing you on the RMB Board.

A photograph of a construction worker in a hard hat and high-visibility vest, using a power tool on a wooden structure. A wheelbarrow is visible in the background. The text "A good career move..." is overlaid on the left side of the image.A photograph showing the interior of a building under construction, with wooden joists and insulation visible. The Registered Master Builders logo is in the top right corner.

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JD Homes attributes House of the Year win to 'subtle little differences'

Jesse de Wys of JD Homes Ltd says winning the Ministry of Business, Innovation and Employment New Homes under \$250,000 award at the Registered Master Builders 2013 House of the Year was "a massive achievement" for him and his team.

Mr de Wys said this was a particularly challenging build, and the win really reiterated that the team is doing a good job.

"It is very difficult to build a home that has a bit of flair and something special, but still fits into the under \$250,000 price bracket," he says.

"This home had some really subtle little differences, particularly around the cladding, that made it stand out as being a little bit special."

The judges called the home "an all-round tidy package in a new Christchurch subdivision, suiting the owner's requirements to a tee and setting the bar for affordable housing".

"The three bedroom home features smart use of space in the kitchen, sloping soffits to give greater light reflection and polished concrete floors," they said.

"This mono pitched, blockwork home boasts a simple but well thought out floor plan, giving good value for money."

Mr de Wys says the networking opportunity with House of the Year is a huge benefit to him and his team.

"You end up meeting builders from all over the country at the gala event, which I found extremely valuable," he says.

"Most builders are pretty cagey about talking to another builder down the road from them, but it's different talking to a builder from another city. It was great to make those connections and spend some time bouncing ideas off others."

Mr de Wys says JD Homes is aiming to be a regular entrant in the competition.

"I think every year we'll continue to enter at least one home in House of the Year. It's fantastic for the team to have something to strive for, and being fairly competitive, I really enjoy the competition side of things," he says.

"The exposure you get from the competition is astronomical. I think most home owners do a lot of research into builders before making their choice, and being a national category winner is a real feather in our cap."

"If there is anyone out there considering entering House of the Year, my advice is to jump in and do it. There is no reason why you shouldn't."

The Awards are made possible through the support of PlaceMakers, Master Build Services, James Hardie, GIB, Nulook, Ministry of Business, Innovation and Employment, Future-Proof Building, Carters, ITM, Plumbing World, Resene and Westpac.



This JD Homes Ltd entry won the Ministry of Business, Innovation and Employment New Homes under \$250,000 award at the Registered Master Builders 2013 House of the Year.



Jesse de Wys (left) and MBIE Building System Performance Branch general manager Adrian Regnault.

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House of the Year great for team building, Lindesay Construction says

Hamish Craig of Lindesay Construction was shocked when he was announced as the winner of the Outdoor Living Award at the Registered Master Builders 2013 House of the Year.

Even after winning many House of the Year awards over the years, he says it's still a great feeling to hear his name read out.

"I was really surprised. This is a small, inner-city property and it was a real challenge to get some decent outdoor living on such a tiny site," he says.

"We've worked on some bigger properties where the benefits of outdoor living are far more obvious, so winning with this build was completely unexpected."

"This property was a little bit special — the challenge of achieving a nice, functional outdoor space on such a steep, narrow site made it very different to others in the competition."

The judges said the two cleverly positioned outdoor living areas make this property an entertainer's dream.

"This home boasts one private sheltered barbecue area and plunge pool, and an opposite area giving fantastic views through the house and across a large deck over the city of Auckland," they said.

"Worked into a sloping section surrounded by other homes, the builder has achieved these fantastic private spaces, while the clever design ensures they are connected on both sides of the house, allowing shelter at any time of day."

Mr Craig says the business advantages of taking part and succeeding in House of the Year are endless.

"This competition is crucial for profile and networking. It's a goal of ours to enter House of the Year every year, because it keeps us fresh in the minds of those in the industry and the general public."



Lindesay Construction won the Outdoor Living Award at the Registered Master Builders 2013 House of the Year with this Auckland entry.

"For us, it's also about keeping a happy team together. The team likes to have that sense of achievement — it's not just about walking away and knowing you built that house, it's about having that achievement recognised by others."

"We think it's a great team-building exercise. We always send all the guys who worked on the project to the awards dinner. It's an opportunity for them to get dressed up and have some fun."

The Awards are made possible through the support of PlaceMakers, Master Build Services, James Hardie, GIB, Nulook, Ministry of Business, Innovation and Employment, Future-Proof Building, Carters, ITM, Plumbing World, Resene and Westpac.



Then RMBF vice-president John Macdonald (left) and Philip Lindesay of Lindesay Construction Ltd.



APPRENTICE

OF THE YEAR

BUILD AN EXCELLENT FUTURE

Bright future for 2013 Apprentice of the Year national finalists

Entries for the 2014 Registered Master Builders Apprentice of the Year competition are about to close and the judges are poised to start assessing this year's talent. *Building Today* caught up with Ben Mitchell (Wellington/Wairarapa) and Eugene Sparnon (Northern) to find out about their experience as national finalists at last year's Apprentice of the Year competition.

What inspired you to enter Apprentice of the Year?

Ben Mitchell: I'm very competitive, so the opportunity to go up against my peers in the building industry to test my skills and abilities was too good to pass up. The awesome prizes were also pretty good inspiration!

Eugene Sparnon: I was impressed by both the profile and prizes previous contestants had gained from entering Apprentice of the Year — that made me want to give it a go. I like a good challenge.

What did you think of the regional competition?

BM: The competition was such a valuable experience for me. I learnt so much about the building industry, both theoretically and practically, that I don't think I would have gained otherwise. The people you meet and the respect you gain is huge.

ES: The regional experience was a great way for me to gauge my own personal progress as an apprentice. As the only apprentice on the building site, it was hard for me to figure out where I stood amongst my peers, so winning the regional competition was reassurance that I was doing a good job.

What did you take away from the national competition?

BM: Nationals were a huge step up from the regional competition. I learnt a lot about working under pressure, and building alongside other contestants in front of the



Ben Mitchell



Eugene Sparnon

public really boosted my confidence. The whole competition was good fun — I really enjoyed it.

ES: It was great to meet and compete against like-minded young builders. The competition was really challenging, but something I would definitely do again. The best part was standing back at the end of the day and looking at my finished product, knowing I had worked as hard as I could for a good cause.

What are your plans for the future?

BM: I'm really keen to get some work experience overseas and learn about the different ways of building. I'll be qualified at the end of the year, so that will be my first move. After that I'll look at furthering my studies, starting my own company or moving into a project manager role.

ES: I'm in the process of venturing out on my own which I'm really excited about. My

ultimate goal is to get to a point where I'm building quality, innovative homes that are worthy of a House of the Year title. That's the plan, anyway!

What would you say to other apprentices thinking of entering the competition?

BM: I'd tell any apprentice to give it a go. Even if you don't end up winning the regionals or the nationals, the people you meet and the respect you gain from your peers and leaders in the building industry is massive. The whole process really makes you think and learn a lot more about your work and about building in general.

ES: Start your application early — it takes time and needs effort. This competition has the potential to open doors and gives you the chance to meet the best in the business. It's just a great opportunity. What have you got to lose?



River crossing new icon for region

Northland's Lower Hatea River Crossing is no ordinary bridge — and nor was it ever going to be.

Awarded the 2014 Supreme New Zealand Commercial Project Award in May, the bridge opened in July 2013, and is already garnering plenty of attention.

"The brief from the client, Whangarei District Council, was to create something that would bring people to the city, that would become an icon for the region, both functional and aesthetic," according to McConnell Dowell engineering manager and project lead Kristian Nelson.

Providing a vital road link between Whangarei's eastern suburbs and industrial areas on Port Road, the bridge also had to maintain a clearway for marine traffic, thereby recognising the importance of the waterways to the region.

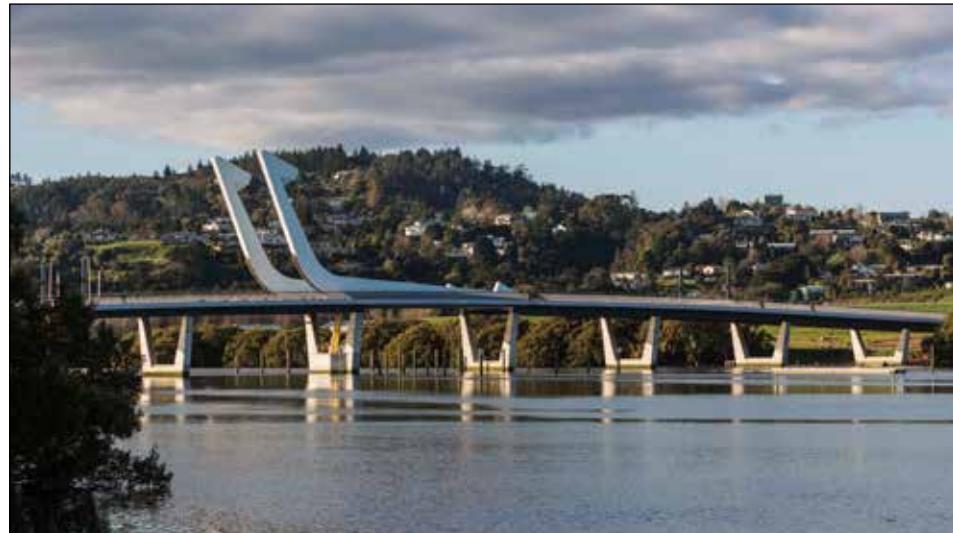
Working with specialist UK bridge architect Knight Architect and local engineer Peters & Cheung to develop the bridge and bascule form that met the brief of acknowledging the cultural history of the region, McConnell Dowell provided assurance for the client that the concept was buildable.

With a form based on the traditional Maori fish hook, hei matua (representing strength, good luck and safe travel over the water), the bridge's opening mechanism is based on a traditional rolling bascule bridge.

The structural steel deck and beam elements are shaped both to cantilever and to roll back allowing the bridge deck to lift, taking advantage of the inherent structure built into the hook form.

"The rolling bascule idea came up early in the process following a walk the architect took through the viaduct where there's an old bridge no longer working," Mr Nelson says.

Community involvement was a priority for the client, and the project team — which included Transfield Services — met with local iwi and community to talk about the area and its rich cultural history.



Whangarei's Lower Hatea River Crossing won the Registered Master Builders Supreme Award for the 2014 New Zealand Commercial Project of the Year.

More than 60% of the project's value was spent locally with Whangarei businesses subcontracted to deliver elements of the construction process, with an estimated \$17 million injected into the region's economy.

The 265m-long bridge consists of five composite steel and concrete spans on either side of the channel, and a 25m bascule span rolled open by hydraulic rams in the centre.

Counterweights in the hook tips of the bascule element use gravity to reduce the energy needed to raise and lower the bridge.

A strict 90-second bridge raise followed by a 90-second lowering ensures smooth passage for boats and road traffic alike.

The Lower Hatea River Crossing is one of a small number of rolling bascule bridges worldwide. It is the first moving bridge built in New Zealand for more than 50 years and only the second rolling bascule ever constructed in this country.

Mr Nelson says the biggest project win is that the completed bridge looks identical to the initial design sketches that were made at the beginning of the project.

"It was a particularly exciting project, because we sold an architectural vision and then had to work very hard to build and deliver it to the budget that was available."

"As to whether or not the bridge is an icon, as architect Martin Knight said, that's up to the community to decide. We've created something unique and beautiful that the people of Whangarei have been hugely interested in. We'd love it to be considered iconic," he says.

Fast Facts:

- **Project:** 265m bascule road bridge over the Hatea River.
- **Construction team:** McConnell Dowell Transfield Services Joint Venture with Peters and Cheung, Knight Architects, Eadon Consulting and Northern Civil.
- **Client:** Whangarei District Council.
- **Bascule system:** 390T with 120T counterweights raised by two 9.5T hydraulic rams.
- **Traffic stats:** 8000 road vehicles per day.

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RMBA annual conference — Game On in Taupo!

A great couple of days were had by all at the Wairakei Resort in Taupo at the Registered Master Builders Association (RMBA) annual conference — themed "Game On".

Opened by RMBA president David Fabish, delegates then welcomed the new Minister for Building and Construction Dr Nick Smith to his first RMBA conference in this portfolio.

The Minister talked about his vision for affordable housing which takes in a number of different solutions as well as explaining the reasons for his approach. His attendance at such short notice to address our membership was very much appreciated.

For the next session we were fortunate to fit into Sir John Kirwan's busy rugby schedule and have him tell us about his journey to where he is today. It was a fascinating insight to a man who, like all celebrities, most people think they know — it's fair to say that not very many of us did!

His honest and up front approach to the highs and lows of his life in the spotlight was refreshing, with a good balance on not dwelling on either. His ability to get a room full of builders up dancing and (dare we say it) hugging each other might have some folk yelling "awkward", but it wasn't — it was just good fun!

There were a number of workshops and business sessions throughout the two days of conference, including:

- Using Solution Messages to Manage Stress, by Ross Gilmour: An excellent session on training yourself to convey the right messages when dealing with people from all walks of life to ensure you get what you want from them — including yourself!
- Variations — Getting them Paid, by Raine Selles: Good practical advice on how to get payment when it's due, something a lot of builders struggle with through the construction process.
- Employing the Right People and Keeping them, by Dr Ian Brooks: This session turned customer service on its head and had delegates looking at the way they interact with their teams and giving them tools to ensure continuity of good staff.
- Getting a Grip on Time, by Robyn Pearce: A session on the dos and don'ts of using technology to avoid clutter and pressure of daily work.
- The Successful Builder, by Greg Joynt: Great advice on running a business, using topics such as goal setting and team building to drive success.



Guest speaker Sir John Kirwan's honest and up front approach to the highs and lows of his life in the spotlight was refreshing, as was his ability to get a room full of builders up dancing and hugging each other!



The team from the Taupo branch were resplendent in their distinctive red and yellow. From left: Mark Haimes, Trevor Watts, Paul Longhurst, John McDermott, Kerry Hudson and Mark Allen.

Another highlight of the programme was an address by Olympic Gold Medallist and Team New Zealand crew member Rob Waddell.

A multi-talented individual on and off the water, Rob took the delegates through his own personal radical transition from the single-mindedness of sculling to the overtly team-oriented America's Cup environment (with a little bit of rugby in the middle just for good measure).

He explained the scary reality of being on board those multi-hulled monsters, and it's fair

to say most of us probably wouldn't fare terribly well. We're pretty sure attendees came away with a definite keenness for little old NZ to have another crack at the auld mug!

For something a little bit different, the formal sessions closed with an expert in European Architecture — James Millburn.

James regaled the delegates with the latest in construction techniques and trends on the other side of the world, some of which had delegates scratching their heads, looking sideways at each other and ultimately rolling



The Carters Gala Dinner was a Winter Wonderland at the Great Lake Centre. Beautifully decked out like a winter landscape without the cold, attendees experienced great food, wine and a band that all came together for a fabulous conference finale.



Outgoing president David Fabish (left) presents Kevin Stanley with his Life Membership.



A fun night was had at the ITM Welcome Function — A Night at the Races.

around laughing.

Once the attendees realised what was going on — basically it was all make believe — they had a great time and took it all in their stride. It was great to end a full-on day of business sessions with a bit of a giggle.

As per usual, the social side of the RMBA conference was one to remember, kicking off with the ITM Welcome Function — A Night at the Races. With the many millions of dollars being thrown around on the gee-gees you could have been forgiven for forgetting about any global recessions for a while. With a best hat competition for the ladies and an auction

to raise money for Taupo's Greenlea Rescue Helicopter, a fun night was had by all.

The following night was the Carters Gala Dinner — A Winter Wonderland at the Great Lake Centre in Taupo.

Beautifully decked out like a winter landscape without the cold, attendees experienced great food, wine and a band that all came together for a fabulous conference finale.



Olympic Gold Medallist and Team New Zealand crew member Rob Waddell.

2014 AGM

Quite a lot went on at the AGM this year with a number of remits being discussed, as well as voting for two new RMB Board directors.

Current directors John Macdonald and Simon Barker were welcomed into the president and vice-president roles respectively for the next two years. David Fabish, now the immediate past president, was thanked for his sterling efforts over the past two years.

Two new directors were voted in by the membership — Darrell Trigg from Auckland and Kerry Archer from Southland. They will be a great addition to the Board as the Association moves forward with all the changes ahead.

The RMBA also proudly bestowed a Life Membership upon Kevin Stanley whose contribution to the organisation is hard to match, including his many years guiding Master Build Services to its very positive current state. Congratulations Kevin!

All in all, it was another very successful conference that couldn't have happened without members, their partners and sponsors — a big thanks to all of them. 2015 sees the conference heading to Hamilton.

Newly-elected board members: Page 12

Meet the newly-elected RMBA Board members ...



Kerry Archer (Southland)



Darrell Trigg (Auckland)

I reside in the sunny deep south in Invercargill, happily married with a house full of kids.

I own and manage two companies — one being Archer Construction which has around 20 staff working on a mixture of residential and commercial projects, and the other being Rapid Rooms which sells and rents portable buildings from Christchurch south.

The reason I belong to the RMBA is not only because of the vital point of difference to clients or because it's a great marketing tool, but because of the camaraderie of belonging and the opportunities this presents to interact with like minded people.

I put my name forward for nomination to the board as I believe I have the skills and passion to assist making a difference to the Master Builders brand moving forward.

With the structural review now being a reality, the Master Builders organisation has an opportunity to become even stronger than it is at present, and to provide better services for its members.

I don't believe we need to reinvent the wheel to do that, but we do need to put in place procedures to assist our members as they are the biggest asset we have.

It's not the funds in the bank or the sticker on the side of the van — to me the Master Builders brand is about people. We need to attract more new members and to encourage current members to become more active, as I believe member apathy is something that needs to be addressed.

I come from Southland which is one of the smaller branches, but I assure you that we all face the same challenges today. All industries, not only the building industry, seem to have gone a bit crazy with compliance and paperwork which can take a bit of enjoyment out of the day.

But I think that now the RMBA is one association instead of 22 separate entities, this gives us not only a much stronger voice in the industry to try to prevent some of the madness, but the ability to share information to makes our jobs easier and, in time, I would like to see this happen a lot more.

I think of the RMBA as a large building project. We are all partners in that project and we all want to see it succeed but, like any project, it needs a good team to lead it.

I believe the current board has done a fantastic job of leading the project so far, and I have welcomed the opportunity to be a part of ensuring we can carry on for the betterment of the brand and our members.

I have been involved in the building industry for more than 26 years, currently as managing director of Trigg Construction, based in Ruakaka, Northland.

I am a trade qualified carpenter, having served my apprenticeship in Whangarei, and am a Licensed Building Practitioner with a Carpentry and Site 2 endorsement.

I have been a member of the RMBA for more than 17 years. In that time I have been involved in, and represented the organisation at many levels, including:

- RMBA National Structural Review Committee member 2007
- RMBA National Health and Safety Strategy working group member 2007
- Auckland RMBA Association Governance Review Committee chairman 2010
- RMBA National Commercial Awards Working Group member 2011
- RMBA Structural Review Group member 2012 - 2013
- Auckland RMBA board member (retired) 12 years
- Auckland RMBA immediate past president and board chair
- Current National Residential Technical Advisory Committee member
- Current RMBA Joint Contracts Committee member with the NZ Institute of Architects
- Currently representing the RMBA on the committee reviewing NZS 4246:2006 Installing Insulation

Getting away from it all, I enjoy fishing, diving and general outdoor activities, and spending time with my wife Marlene and daughter Amy who is studying Business at Massey University.

I have an intense interest in helping people succeed and for ensuring organisational success. I certainly understand the role an effective Board has on this success.

I am particularly interested in ensuring effective Board governance practices complement the way the RMBA operates and, therefore, how it directly benefits its members.

I bring a wealth of experience to the Board environment. I have a balanced view and am certainly not backward in coming forward when and if it is needed. I have a deep awareness of the relationship between the governance and business functions of an organisation and how they can successfully interact.

There are many opportunities and initiatives going forward. I believe with the experiences I have been afforded over the past 14 years in management and governance, that I am more than confident I can add solid value to the foundations that have been laid to ensure the success of the RMBA and its members.

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Taranaki beats construction hotspots to win Construction Cup



Outgoing RMBA president David Fabish presents the Construction Cup to John Street of Taranaki.

The Construction Cup has been won by the Taranaki branch of the Registered Master Builders Association.

The cup is awarded to the branch that has the highest percentage membership increase over a 12-month period.

Taranaki Life Member Gary Lord says as a branch, Taranaki is very aware of the need for younger members and the need for them to be nursed into the membership.

"We have a dedicated executive member, Jon Lines, who vets all new applications and then organises a coffee meet with the new member and normally two of us old boys so we can get a face-to-face feel for the new member that you cannot get from a piece of paper," Mr Lord says.

"And the prospective member can put a face to the name and ask us any questions they may have too."

"We step them through a questionnaire we have devised to make sure we understand their strengths and weaknesses, and where we can help when they become members. We explain to them the importance of the membership, and the code of ethics we adhere to in Taranaki."

Mr Lord says the Taranaki branch is looking to again run a meeting that shows new members the basics of the construction business, whether it be how to build up a correct charge out rate or to understand the importance of back costing jobs.

As for the future, he says Taranaki is similar to most of rural New Zealand, and is emerging from the past few slow years.

"We anticipate a continued growth for the next 12 months, but with an eye on the dairy pay out that could stifle growth. But we are lucky to have a strong Taranaki economy that allows us to keep our existing staff currently employed," he says.

So how did Taranaki beat construction hotspots such as Auckland and Canterbury to the much sought-after annual award?

"When you have the best climate in New Zealand, the prettiest girls, the highest capita per population and you work as hard as Jon in obtaining members, it is a given," Mr Lord explains.

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Real risks associated with over-cladding

Mike Fox's column on over-cladding last month elicited this response from NZ Institute of Building Surveyors president Philip O'Sullivan and NZIBS executive member William Hursthouse, who say that the practice is a dangerous short-term solution.

We both have a background as builders and we share Mike Fox's concern with the cost of recladding buildings.

We are also both members of the New Zealand Institute of Building Surveyors. Members of this organisation were instrumental in the changes from untreated back to treated framing, and from direct fix to cavity construction.

Unfortunately there are real risks associated with over-cladding, which did not get a fair airing in Mr Fox's article. There is no dispute over the time period in question — all monolithic-clad houses, especially those built from 1993 to 2005 tend to be stigmatised, especially in the main centres.

Mr Fox expresses his opinion that "tens of thousands" of these homes are, in fact, sound, but offers nothing to back up this claim. We all know by now that "no sign of moisture ingress" does not equate with "no problem".

Part of the explanation for the stigma is that many of these houses have failed to perform despite no outward signs, and that creates doubt regarding the rest. It is worth looking at what has gone wrong, as this provides the backdrop to considering the merits and risks of over-cladding similar homes.

Some background to the problem

At the beginning of the decade in question, treatment applied to pine framing was undergoing significant changes. Prior to 1993, green, or wet, Radiata pine was well treated with boron, which provided not only protection against borer and other such insects, but also some protection against fungal decay.

Shortly after the introduction of the first Building Act, the new building code requirement for framing to be dry before linings were installed was one trigger for change.

Builders were soon sick of using blow dryers so merchants started supplying kiln-dried framing for them — but most of the boron came out with the water during the drying process.

The NZ Standard was amended to allow lower

levels of boron in kiln-dried pine that were intended only to prevent insect attack, or Permethrin could be added after drying. This also satisfied the requirement to stop insects eating the framing but, unfortunately, added no protection against fungal decay.

So houses were being built with "H1" treated framing which was nearly or equally as vulnerable to fungal decay as untreated pine.

Coincidentally, the export market of Radiata pine took off, resulting in a shortage at home, which the Douglas fir suppliers were happy to fill — even with sapwood, which lacks the natural protection Douglas fir is famous for, making it also more vulnerable to fungal decay.

Timber in houses at this time could come from a wide variety of sources — a merchant would have one supplier for wall framing, another for lintels, another for joists, another for roof trusses and so on.

And substitution was common, especially after kiln dried "chemical-free" timber was sanctioned in 1995. So while treated timber might be specified and even ordered, frequently, the new kiln-dried untreated timber was used instead.

This means that while some framing in a house built during this era might be treated, that is no guarantee it all is.

Then there is the building paper. At this time most claddings were still installed over kraft-based product — the black stuff. This is an ideal medium for growing moulds as it contains cellulose, a basic food for many moulds and all decay fungi.

When monolithic claddings came back into fashion in the mid-1980s, there was very little residual knowledge (from the 1950s) of previous problems and how to do this type of cladding well, and the result was some very poor weathertightness detailing.

BRANZ responded in 1996 with the *Good Stucco Practice Guide*, but this, too, contained some poor detailing, and there was no requirement for a cavity between the stucco and the framing until 2005.

Plastered polystyrene (EIFS) and plastered fibre cement detailing improved dramatically

during the 10 years in question, but it wasn't until around 2004/05 that the general move to cavities was completed.

Specific problems that can arise with over-cladding

If the over-cladding is successful, the old black building paper behind the original cladding will dry out. Some of the moulds which have been growing on the previously wet building paper are potentially harmful, and drying out releases their spores. Once airborne, they can be carried inside, creating health problems.

Ground level issues are common, and in many cases the most efficient solution is to raise the bottom plate on a new concrete nib contained within the wall.

The alternatives commonly used when over-cladding include lowering the ground outside, or installing surface drains which tend to be less satisfactory.

In particular, surface drains directly under the new cladding are generally a bad idea for several reasons — they are maintenance intensive and water ponds when cleaning is not done frequently.

Cavities are designed for rapid air movement and water vapour is drawn up inside, condensing at a higher level and potentially creating new problems.

In addition, if the new cladding stops close to the grill on top of the surface drain, water inevitably bounces up off the grill and can soak into the new work.

Perhaps the most obvious risk with over-cladding is that until technology delivers a machine that can fully disclose what is hidden within the walls, we will never know exactly what we are covering up — and experience has shown there can be many hidden problems which are not directly related to weathertightness failures, on top of damage due to leaks, which is not discovered until all the cladding comes off.

Structural issues are only too common in houses built during that era — structural steel

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BRANCH	DATE	TIME
PlaceMakers Te Rapa	Tuesday, 10 June 14	7:00am - 9:00am
PlaceMakers Clarence Street	Tuesday, 10 June 14	5:00pm - 7:00pm
PlaceMakers Huntly	Wednesday, 11 June 14	7:00am - 9:00am
Placemakers Whitianga	Wednesday, 11 June 14	5:00pm - 7:00pm
Placemakers Thames	Thursday, 12 June 14	7:00am - 9:00am
PlaceMakers Morrinsville	Thursday, 12 June 14	5:00pm - 7:00pm
PlaceMakers Cook Street	Tuesday, 17 June 14	7:00am - 9:00am
PlaceMakers Waiheke	Tuesday, 17 June 14	5:00pm - 7:00pm
PlaceMakers Albany	Wednesday, 18 June 14	5:00pm - 7:00pm
PlaceMakers Wairau Park	Thursday, 19 June 14	7:00am - 9:00am
PlaceMakers Nor - West/ Westgate & Helensville	Thursday, 19 June 14	5:00pm - 7:00pm
PlaceMakers Silverdale	Monday, 23 June 14	7:00am - 9:00am
PlaceMakers Mangawhai	Monday, 23 June 14	5:00pm - 7:00pm
PlaceMakers Whangarei	Tuesday, 24 June 14	7:00am - 9:00am
PlaceMakers Kerikeri	Tuesday, 24 June 14	5:00pm - 7:00pm
PlaceMakers Kaitaia	Wednesday, 25 June 14	7:00am - 9:00am

Dates and times may change. Contact your local store for more information and to confirm session times.

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Falling from height safety measures — make

Building Today continues with an exclusive new column by industry stalwart Mike Fox, who talks candidly about issues concerning the New Zealand construction industry.

Is the current fixation with the prevention of falling from heights money well spent on residential projects?

There is no question that health and safety on construction sites is highly important, and risk should be minimised wherever practicably possible. However, there is a point where punitive measures reach a tipping point as to the cost benefit they produce.

The current obsession the authorities have with trying to prevent falls from heights on residential projects is costing the nation dearly, both financially and in lost productivity.

Housing affordability is currently a major factor facing home owners, and it's logical to think that any measure increasing the cost of housing would be carefully analysed and justified before it was imposed.

However, those in the industry know that this is not the case, with countless and often needless changes being incrementally imposed with scant regard to the cost implications.

I have been told the cost of falls on construction sites is about \$24 million per annum. Yet when you ask for the supporting facts and evidence, and what the cost of the extra measures are, or even for a cost-benefit analysis, the answers provided by the authorities are very vague or non-existent.

There appear to be precious little facts available to justify the extent of the current regime. Conservatively, the cost to the consumer of the current approach is approximately \$15,000 per dwelling (excluding the consumer's additional holding costs) — or about \$300 million in total, each and every year. So my question is: Is this money well spent, making a measurable difference and returning value?

I liken it to earthquake risk buildings — should every building below 100% be either demolished or strengthened? I doubt it. You can't eliminate all risk, and it would not be economically viable, but there is a pragmatic level that is justified.

The same goes for road safety — should we



Mike Fox

reduce the road toll by lowering the speed limit to 30km/h and putting median barriers and pedestrian handrails on every road? These measures would certainly have an impact, but at what cost?

We currently have a small army of safety inspectors roaming around the country dishing out instant fines and prosecution notices to builders who have not fully scaffolded a single-level dwelling, or installed fall nets before roof trusses are installed.

One of our contractors incurred an instant \$1800 fine from an inspector, purportedly for some activity spotted at a right angle view from 250m away, while the Inspector was driving at 100km/h on State Highway One.

As it transpires, the inspector was wrong and his claims were out of order, but he seemed to take some pleasure in stating "I am pingng you for this". The contractor in question was livid, but his only option in defence was to go to court to explain the farce.

He took the pragmatic but personally bitter option and paid the fine, but he should have exposed this mindless action in court.

It has reached the point where a tradesman

can't even stand on a saw stool without the fear of getting an instant fine or threat of prosecution. I have also heard of inspectors shutting down sites because a handrail was 100mm too low. When inspectors are challenged, they say their job is to make sure everyone is working safely, but when asked what the actual requirements are, their response is somewhat ambiguous.

Essentially, it's up to us to determine the requirements from the guidelines and for them to enforce. This seems particularly unhelpful and somewhat bizarre, particularly given the inconsistencies in the interpretation and enforcement of the guidelines, not only between inspectors, but also regions. Compliance is a vague and moving target.

I recently attended a seminar conducted by an internationally-renowned authority on efficient, best practice, residential building methods. He was dumbfounded by the approach taken by our authorities and their fixation on policing single-level dwellings for falls. He very much doubted the extra cost and time delays being imposed were warranted.

After meeting with some builders operating in Sydney and discussing the requirements for fall protection there, I was met with a similar incredulous response.

It seems the authorities in New South Wales have taken a much more practical and pragmatic approach. If you are building a single-level home with a gable end, then it needs a scaffold. Two-storey dwellings need to be scaffolded, and there is no requirement for fall nets.

These safety requirements are exactly what you would expect to be present on a safe and efficient construction site. I would add further that if edge protection was fitted after the erecting of roof trusses, that would be the best return on safety and investment.

The rest of the current measures should be relegated to the tried but impractical bin. It's not clear where New Zealand's requirements have come from, or if the authors of them have ever visited a site to experience the outcome of what they have imposed.

them more cost-effective and practical

It almost smacks of people creating jobs and a supporting industry for themselves, and I strongly suggest the authors of the current regime spend a few days on site to experience it for themselves. There's no doubt in my mind that practical and wholesale changes would follow as a result.

Feedback from tradesmen is that fall nets and scaffolding installed on a single level home prior to trusses do not improve safety or efficiency on site. They hinder the efficient transfer of material around the site, make it very difficult to install windows, force work that was traditionally and safely done from below the trusses to be done from above, and at height.

Work flow is delayed, sometimes for days, while waiting for contractors to install the scaffolding and nets, resulting in extra costs for the building project, which are inevitably passed on to the home owner.

Construction typically takes three weeks longer under the new measures, and the whole industry is put under further pressure when productivity needs to be ramped up to meet demand.

There is no uncertainty that falls on site cause harm, and they need to be limited to a practical minimum. However, I suggest an urgent rethink to the current flawed and impractical approach, including a factual cost-benefit analysis and engagement with industry to develop cost-effective, practical solutions — the ultimate outcome being safer workplaces with a more affordable product for the end user.



Another building site sits idle while waiting for contractors to install scaffolding and nets.

It is highly questionable that the current regime produces either.

• This article contains the author's opinion only, and is not necessarily the opinion of the Registered Master Builders Association, its chief executive or staff.

Real risks associated with over-cladding

From page 16

without bolts, bracing not tied down, beams not properly supported, missing lintels, missing insulation, electrical mistakes — the list is endless.

Of course there were good builders, and not all houses built then have these problems. In particular, monolithically-clad houses which are only one storey high, on protected sites, with wide protecting roofs all around are obviously less likely to have weathertightness-related problems than a house with two or more storeys, enclosed decks and no eaves on an exposed site.

But, again, until you take the cladding off, in all cases there is a whole lot of unknowns.

With respect to the money saved, there is no doubt that it is cheaper to simply over-clad.

Actually, the short-term savings should be significant as you are not replacing any decayed timber, not treating the rest to protect it going forward, nor confirming and/or bringing up to code the structure, bracing, insulation, electrical etc.

Longer term, the savings are less certain.

Depending on how the junctions between the cladding and joinery, cladding and roof, and ground level issues are detailed, over-cladding may not solve all the weathertightness problems.

Even if successful, given all the questions which remain unanswered regarding the condition of the structural components, you have to wonder — how much of the stigma has actually been removed?

And then there are the risks associated with the law. Unfortunately, the Government which passed the first Building Act in 1991 enshrined litigation as an acceptable way to resolve construction disputes, and as a society we have embraced this concept wholeheartedly, much to the delight of legions of lawyers and their experts.

Mr Fox complains that councils are risk averse. Who can blame them, considering how often they have been sued?

Until the law regarding joint and several liability is changed and New Zealand embraces a fully effective home warranty scheme like the British one — see www.nhbc.co.uk — everyone involved, including builders, inspectors, experts, conveyancing lawyers and councils alike, cannot afford to forget how easily they

can be taken to court, and the many business which have been bankrupted should serve as a warning.

If (or when) problems appear after over-cladding, litigation will follow as night follows day, and everyone involved will have to justify the limited approach that was taken.

"Saving money" is no defence if the works have not met the performance requirements of the building code.

One possibility which has always existed under the Building Act is to reduce the expected life of the proposed work. While the default is 50 years, there is nothing to stop an applicant using a lower number.

If the over-cladding is only meant to protect the existing building for 10 or 15 years, before the building is fully reclad or completely rebuilt, that would reduce the risk considerably, but the stigma and loss of value may remain.

And now there are over-clad jobs that have failed, with everyone including the unfortunate builder being sued. And all those involved, including the owners, now regret the (very) short term solution. The old adage applies — better to be safe than sorry.

New commercial centre

A new commercial centre for North Canterbury — at the heart of Ravenswood Village, a residential community with more than 1500 sections — will provide more choice and convenience for residents of Ravenswood, Pegasus, Woodend, Rangiora and Kaiapoi.

The new 10-hectare development, divided into 44 commercial lots with space for 70 shops and services, is currently in development off State Highway 1.

The commercial centre will focus on large-format retail and light industrial premises, including a supermarket, hardware store and a number of other leading retailers, as well as a range of food outlets and other services.

The new centre will also feature a fuel station, with comprehensive on-site facilities and extensive parking, to serve the local area and commercial and commuter traffic on State Highway 1.

Smaller scale retail, including boutique shopping, a restaurant and cafe will complement the commercial hub.

PwC building to start soon

PwC is the anchor tenant for the new PwC Centre in the heart of Christchurch's CBD.

The new building at 56-64 Cashel Street will be ideally located on the Avon River, overlooking the Bridge of Remembrance, and central to the developing business centre, retail and justice precincts, as well as to transport links.

Construction of the A-grade development, comprising of six floors, is expected to commence within the next three months, with an expected occupancy date of mid-2016.

The building will exceed the requirements of the current earthquake code, and the development is being built to an extremely high standard, ensuring occupants enjoy a safe and pleasant working environment.

The PwC Centre is an innovative Warren and Mahoney-designed building. It is lightweight but strong, and designed to 130% of the current building code (IL3).

With a high level of energy efficiency and a distinctive facade that embraces its surroundings, the PwC Centre is expected to be a landmark in the city.

Growing market for solar

SolarCity has launched solarcitydirect.co.nz, enabling solar installers to buy the latest solar technologies at the best prices, backed up by the company's award-winning

Opus Architecture design takes out top spot as Christchurch energy champion



An ongoing, and outstanding dedication to sustainable energy has seen Opus Architecture, and its parent company Opus International Consultants, applauded at the Energy Efficiency & Conservation Authority (EECA) Awards in Auckland recently.

Tait Communications' new Christchurch campus, an Opus Architecture design, picked up the new Christchurch Energy Champion Award, won jointly with Community Energy Action.

Noted for its smart design and technology, the 7,000 sq m building's use of natural lighting and recycled ground water for heating and cooling purposes will make it up to 50% more energy efficient than Tait's

previous campus.

Feedback from the judges highlighted the advanced and ambitious nature of the project which, they said, was particularly worthy of admiration within the context of the re-emerging city of Christchurch.

Opus International Consultants was a finalist in the same category for its contribution towards building a more sustainable Christchurch, via work with such high-performing, low-energy developments as the Avon River Precinct, and ongoing advocacy for energy-efficiency in all commercial projects it is currently involved in.

engineering team.

In 2008, solar panel prices were 343% higher than in 2013 and, in parallel, the retail price of power has increased by 84%.

As a consequence, the market for solar energy is rapidly expanding in New Zealand, and contractors who are able to offer high quality installations will be best placed to win more work.

Solar City chief executive Andrew Booth says the company's objective is to make solar more accessible and to support installers so they can focus on growing their business faster.

With its easy-to-navigate categories, comprehensive descriptions and detailed images, installers can quickly browse and find the products they need.

SolarCity provides its clients with a turnkey solution by providing the equipment and supporting engineering advice and documentation to help trade professionals develop their solar business.

Productivity Partnership's Auckland Procurement Forum to form the Auckland Infrastructure and Procurement Forum.

The expanded forum connects infrastructure providers, advisors, constructors and suppliers to help ensure that investment in Auckland's infrastructure supports the region's growth.

Members include the NZ Transport Agency, Vector, Auckland University, Watercare, Telecom and the Auckland DHB.

It is chaired by Auckland Council chief operating officer Dean Kimpton and will meet quarterly.

"The Auckland Infrastructure and Procurement Forum brings together decision makers and delivery agents in one place with a common purpose," Mr Kimpton says.

"This enables us to take a collective, long-term view of Auckland's development so we know what we're building, when, where and why."

"An integrated approach will help ensure we have the infrastructure in place needed to deliver on the Auckland Plan."

"Essentially, the forum is about sharing information," Mr Kimpton says.

Infrastructure forums merge

Auckland Council's Mayoral Infrastructure Providers Forum has merged with the

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Rebuild leaders launch new video to demonstrate safety commitment

Signatories must commit to 10 H&S acts

Major construction, insurance and government agencies involved in the Canterbury rebuild recently launched a new video illustrating their collective commitment to keeping every rebuild worker safe.

The three-minute video produced for the Canterbury Rebuild Safety Charter demonstrates the strength of the Safety Charter and the collaborative work underway.

"Since the Safety Charter was launched in July last year it has grown significantly," according to Graham Darlow, chief executive of Fletcher Construction and chair of the Safety Charter Steering Group.

"Our industry in Canterbury is really stepping

up in terms of health and safety — and we have the potential to create a real legacy with the rebuild," Mr Darlow says.

"This video demonstrates the strength of the collaboration and commitment of the Safety Charter community. Our work is making a difference.

"We had dozens of construction, insurance, government and industry leaders and workers come together — many of them competitors — to film across a number of sites in the region," he says.

The Canterbury Rebuild Safety Charter involves 10 actions about health and safety on sites, which each signatory must commit to.

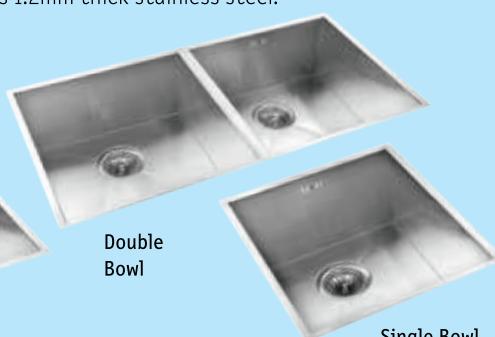
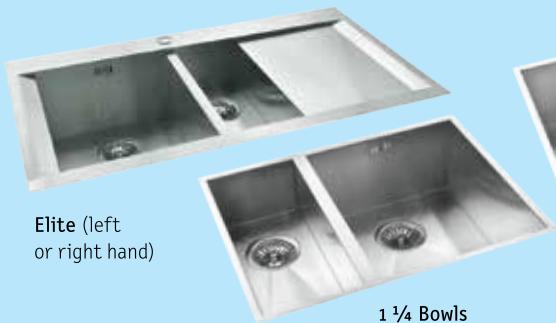
"The Safety Charter isn't just a piece of paper organisations sign. This is about making real and tangible differences to the safety performance of our companies and our industry as a whole," Mr Darlow says.

The launch event was hosted by the Business Leaders' Health and Safety Forum, and also saw more than 20 new signatories officially sign up to the Safety Charter.

"I feel proud of the work we're all doing as part of the Safety Charter. This is about the industry collectively lifting its performance to ensure everyone working on the Canterbury rebuild goes home safely every night," Mr Darlow says.

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RCG wins two awards for innovation, design and commercial excellence

RCG, a property strategy, architecture, design and research company based in Auckland has received two awards at the National Property Council Gala recently.

In the education category, RCG received an Excellence Award out of seven finalists for the Paul Keane Gymnasium, a multi-purpose facility designed for St Mary's College in Auckland.

The company also collected a Merit Award in the retail category for the Farro Fresh Retail Development in Grey Lynn, Auckland.

The wins reflect RCG's ability to provide leading development solutions across a range of sectors, from commercial, mixed-use, retail and hospitality to tourism, town centres, lifestyle precincts and transport hubs.

RCG director John Long says the opportunity to apply the company's expertise to support the education sector and Catholic Community was a great experience.

"When a project like St Mary's comes along, that's when our work gets exciting. The challenge was to deliver a state-of-the-art yet commercially-sound facility supporting the college development programme while enhancing student learning," Mr Long says.

The property awards focus on outstanding delivery of value as well as project innovation, design and construction.

Both projects have a similar result, but the strategy behind the Farro development was quite different. RCG director John Lenihan explains why the call was made to re-purpose the original building on site.

"Our tactics kept base-build and fit-out costs to



RCG received an Excellence Award for the Paul Keane Gymnasium, a multi-purpose facility designed for St Mary's College in Auckland.



The company also received a Merit Award in the retail category for the Farro Fresh Retail Development in Grey Lynn, Auckland.

a minimum whilst also being true to the design needs of Farro Fresh," Mr Lenihan says.

"It was strategically designed to achieve a holding income and attract premium long-term tenants."

Since Farro began in 2006, RCG have assisted the brand with its retail strategy, design and

property development programme.

"We call it 'constructive thinking' and it's what makes our company unique. We back up our work with sound research, giving our clients confidence in our recommendations and helping them to achieve commercial success."

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A graphic featuring a circular "Lifemark" logo with "APPROVED STANDARD" text around the perimeter. To the left of the logo is a photograph of a modern, spacious kitchen with white cabinetry, a central island, and stainless steel appliances. The kitchen looks out onto a dining area and a living room. The overall aesthetic is clean and contemporary.

Building regulation reforms to save A\$1.1 billion a year

Australia's building and plumbing ministers have agreed to significant building regulation reforms with the potential to unlock an additional A\$1.1 billion in economic benefits annually, including making future editions of the National Construction Code (NCC) available free online.

Australian Building Codes Board (ABCB) chair John Thwaites says the NCC would now be more accessible for users.

"The reforms adopted by the Australian Building Ministers' Forum meeting in Sydney in May represent an important advance in the Council of Australian Governments' deregulation agenda," Mr Thwaites says.

"The forum agreed in principle to make the 2015 NCC and future editions freely available online, with details to be finalised in the coming months.

"This will eliminate the NCC's purchase price (almost \$400), improve small business' access to the NCC, and increase the number of

building and plumbing practitioners using the NCC from 12,000 to around 200,000 across Australia," he says.

The forum also agreed to move from a one-year to a three-year amendment cycle for the code, commencing with NCC 2016.

"Extending the interval between amendments will deliver more certainty and stability about regulatory change to the Australian building and construction industry and is an important deregulatory step." Mr Thwaites says.

"The Board will now devote resources to simplifying the NCC and making it easier to use."

The forum requested the ABCB to further investigate the possible inclusion of matters concerning telecommunication spaces and pathways in the NCC.

It also agreed to measures that are expected to lead to greater consistency in building regulations across the states and territories, by limiting variations to the NCC.

NCC and ABCB — what are they?

The NCC provides model regulations for buildings and plumbing, and is given effect through state and territory legislation. It sets minimum requirements for the design, construction and performance of buildings throughout Australia.

The ABCB is a joint initiative of all levels of government in Australia, with the building and plumbing industry. It oversees issues relating to health, safety, amenity and sustainability in building.

The ABCB promotes efficiency in the design, construction and performance of buildings through the NCC.

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Canterbury construction event takes off



This year sees Canterbury achieve another first when New Zealand's largest building and design exhibition, buildnz | designex, comes to Christchurch.

It's already fully booked and ready to give Canterbury and South Island building and design professionals a grand trade-only spectacle over three days from July 31 to August 2.

Modelled on the highly successful award-winning Auckland buildnz | designex, the Canterbury event benefits from 20 years of input into the industry. This has resulted in more than 145 key suppliers from across the design, construction and build sectors coming together under 2600 sq m of floor space at Christchurch's CBS Arena.

Researching the latest products and technology, and hearing from industry leaders across free seminars spanning the three days will attract the industry's most highly recognised professionals, as will anyone determined to stay ahead of the pack.

The value of Canterbury buildnz | designex is obvious when you consider that industry heavyweight contributors include CBANZ, BRANZ, MBIE, NASH, ADNZ, NZIA, Lifemark, Homestar, Christchurch City Council and the RMBA.

"Canterbury buildnz | designex is a great initiative," Certified Builders Association chief executive Grant Florence says.

"We found the 2013 Auckland event very valuable and one that made us look very closely at being a proactive supporter for the Christchurch event, which we are."

Chris Kay from NZ Steel says nothing beats the opportunity for face to face interaction at buildnz | designex exhibitions.

"That's why New Zealand Steel, in conjunction with the National Association of Steel-Framed Housing (NASH), exhibited at the 2013 show in Auckland and have booked stand space for the Christchurch event," Mr Kay says.

"Through these shows we meet existing and prospective builders of steel-framed houses, answer technical questions and distribute the latest technical information to support the use of steel framing.

"The 2013 show also provided a number of opportunities to establish training opportunities through the polytechnics, which are being followed up by NASH."

Canterbury has immense importance to New Zealand's economy and, in particular, the construction, build and design sectors. The impact of the tragic earthquakes has seen huge growth in demand, with an estimated \$30 billion expenditure in the rebuild alone, much of that in the next two years.

It is important that those involved in the rebuild have access to the latest industry technology and information.

Canterbury buildnz | designex will give trade visitors the opportunity for direct dialogue with key industry suppliers, ensuring that not only are they up to date with industry developments, but so they can also negotiate great deals and take advantage of the many show-only specials.

This must-attend event includes a busy educational and development seminar programme across the three days, available free of charge to all attendees.

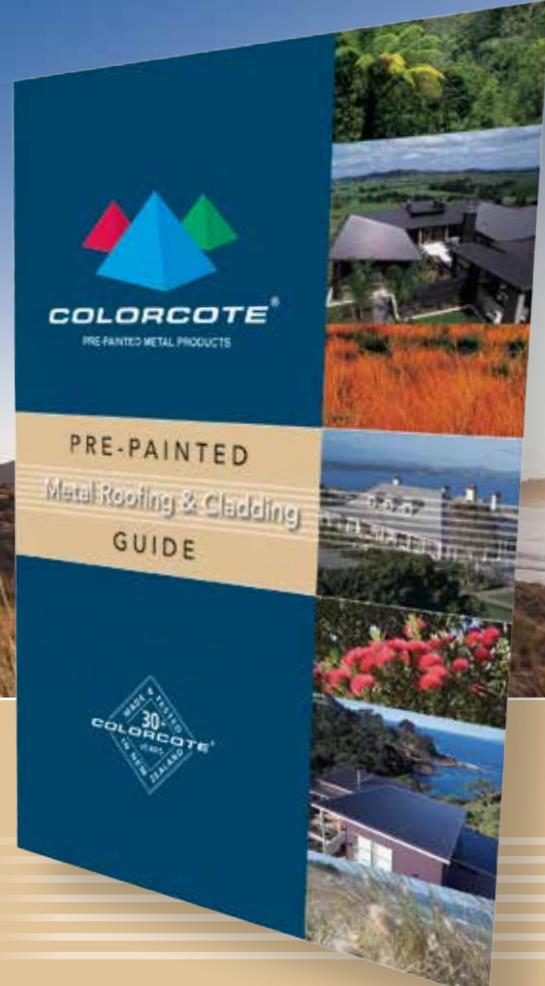
One of the highlights will be a session with award-winning architect Nat Cheshire of Cheshire Architects, whose inspiring vision for creative design is not to be missed.

Show organiser XPO Exhibitions has scheduled an extensive visitor marketing campaign to ensure the message gets to the industry, with a strong presence online and in radio, press, billboards and topical media publications.

Please visit the web site www.canterburybuildnz.co.nz for more information, and to pre-register to visit this trade-only exhibition.

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Minister to speak at NZGBC Sustainable Housing Summit

The New Zealand Green Building Council (NZGBC) has announced that Housing Minister Dr Nick Smith will be providing the opening address at this year's Sustainable Housing Summit in Auckland.

The Sustainable Housing Summit is a biennial event organised by the NZGBC. The purpose of the event is to showcase leading thinking on sustainability in the residential built environment, and to provide the sector with an opportunity to participate, debate and network with like-minded peers around the critical challenges and opportunities facing housing in New Zealand.

NZGBC chief executive Alex Cutler says the organisation is delighted to have Dr Smith open the Auckland Sustainable Housing Summit.

"Housing is a major political issue, and it is fantastic to have the Minister give us his insights into how Government is seeking to address issues such as affordability, quality and sustainability," Ms Cutler says.

The Summit considers whether the current model of measuring affordability by capital cost rather than whole of life cost is flawed.

"Achieving the lowest build cost per square metre usually means satisfying minimum code requirements, in the cheapest possible manner," Ms Cutler says.

"In this context, affordability is restricted to initial purchase price of the house, but ignores the true total cost of home ownership."

True affordability

True affordability must consider not only the purchase price of a property, but also how much it will cost to own, operate and maintain, how costly it will be to commute to work and interact with the community, and how the house will impact the health of the occupants."

"The Sustainable Housing Summit will feature some fantastic speakers and a panel discussion that looks at these issues, as well as several national and international case studies of innovative, affordable, sustainable buildings".

International speakers contributing to the Sustainable Housing Summit 2014 include keynote speaker Lucinda Hartley, one of the Top 100 Influential Melbournians in 2012, and co-founder and director of CoDesign Studio, a social enterprise focused on empowering neighbourhoods through design of public spaces and community facilities.

In addition, Paul Cooper, director of the Sustainable Buildings Research Centre in Wollongong, presents the winner of the Solar Decathlon China 2013 Illawarra Flame House, a renovation of a typical Aussie fibro home.

National speakers include New Zealand Institute of Architects president Pip Cheshire and Westpac chief economist Dominick Stephens. Also featured will be case studies from Hobsonville Land Company's Axis Small Home Test Lab, WikiHouse NZ and Strachan Group Architect's Studio 19 Social Housing Project.

The Sustainable Housing Summit:

- Auckland: June 25, Aotea Centre, Auckland
- Christchurch: June 27, Christchurch Civic Building, Christchurch

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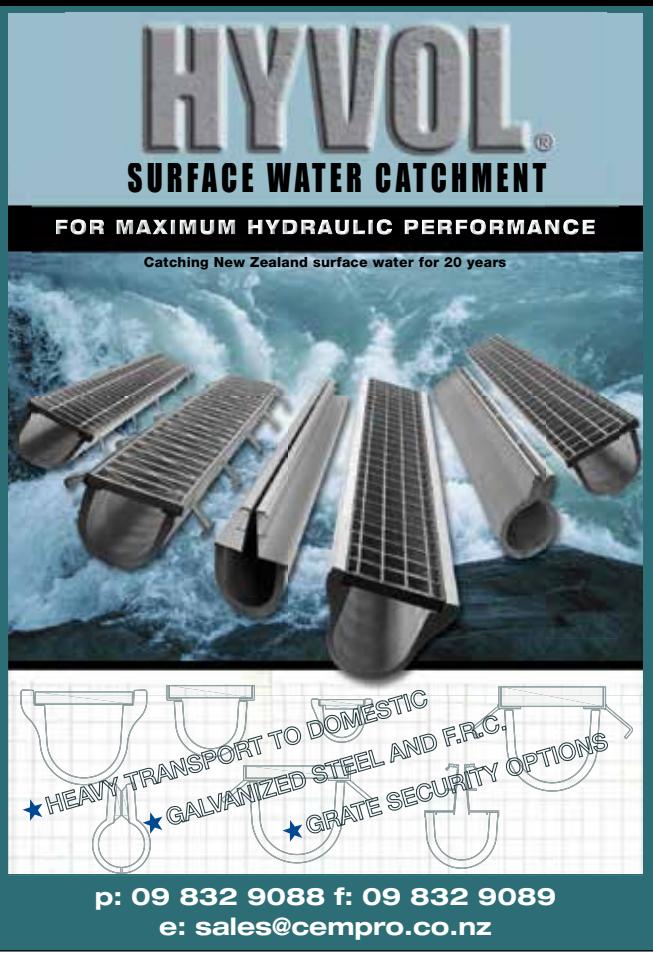
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Specialised connection service a

Although Genesis Energy has offered a specialised service to the trade for a number of years, it was renamed "Trade Connections" in 2013, and retains its emphasis on providing a unique and dedicated service supporting the trade industry.

"Genesis Energy Trade Connections is the only trade-specific service dedicated to supporting the construction industries of New Zealand with its new electricity and gas connection needs," according to Genesis Energy's Stuart MacRae.

"We carried out widespread research to determine the requirements of the industry, enabling us to deliver a quality product. Trade Connections makes everything simple, easy and efficient to ensure our trade clients receive a seamless service.

"Our Trade Connections service is designed to not only save our trade customers time when arranging a new electricity or gas connection, but also money," Mr MacRae says.

"Genesis Energy does not charge a daily line fee, and we offer trade-specific rates for electricity and gas. Over the duration of a build, the savings can be considerable."

Genesis Energy's specialist trade rates are 35 cents per kilowatt hour for electricity and 30 cents per kilowatt hour for natural gas. These rates are available for up to six months during the construction process, and result in very competitive monthly energy bills.

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"As well as the competitive prices and the quality service, Trade Connections supports the construction industry through our associations with many of the large group building companies, including Future-Proof Buildings, Registered Master Builders, Certified Builders, and Master Plumbers, Gasfitters and Drainlayers," Mr MacRae says.

"We also have a regular presence at trade events throughout the country, which gives us the opportunity to talk to people in the trade. This ensures we keep up to date with industry trends and initiatives, and allows us to pass on any topical information, assisting the customers with their new connection requirements," Mr MacRae says.

Trade Connections is one of a range of services that Genesis Energy offers consumers to make their lives easier. Genesis Energy has almost completed its roll out of Advanced Meters. These electricity meters have wireless communications that read how much electricity is actually being used, as opposed to relying on estimates or monthly meter reads.

Genesis Energy also offers dual fuel benefits to customers that use electricity and natural gas.

New connections can be made through the Genesis Energy Trade Connections call centre, via email or fax. Alternatively, there is an online option that allows you to connect in your own time on the Genesis Energy Trade Connections web site.

The web site also offers an online calculator to assist trade customers to estimate the savings they could potentially make when using this service.

Call 0800 155 010 to get in touch with a Trade Connections specialist, or log on to www.genesisenergy.co.nz/tradeconnections to find out more.



Genesis Energy's Stuart MacRae on site.

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From Midlands 'employment train

Building Today continues its exclusive Q & A with the country's most influential construction industry leaders. This month: Fletcher Distribution chief executive - PlaceMakers and Mico, Dean Fradgley.

Where were you born and raised?

I was born and raised in Staffordshire, England, in an area called the Black Country — a blue collar industrial zone, historically famous for chain and nail making in the industrial revolution.

It was named the "Black Country" because of all the soot that emitted from the factory chimneys and covered the houses. I can happily say it is much cleaner and greener today. But sadly most of those great manufacturing sites are long gone.

What schools and tertiary institutes did you attend, and what relevant qualifications did you obtain?

Too many to specifically list, but my most relevant qualifications are hopefully common sense and customer-centric. I have a plethora of English O levels, some A levels, studied for an MBA at Stirling University and attended IMD business school in Lausanne, Switzerland. I also have an IOSH qualification in Health and Safety.

I like to learn something new every day, so I always read and often study for pleasure and fun. In the past couple of years I completed a dozen or so product training courses in England on piping systems, HVAC, refrigeration, electrical etc. It all helps. Especially in pub quizzes.

What are your family/other interests/hobbies away from the workplace?

I played rugby for 30 years (badly) and boxed in various forms — Thai, Kick and ABA boxing for a decade. I am a regular at my gym. And as much as I love the great New Zealand outdoors I will not be bungee jumping!

I permanently emigrated here in November, so it's early days, but I am slowly getting around the great locations and sites that the North and South Islands have to offer.

My son has just signed for Drury Rugby Club, and has hopes of emulating Martin Johnson (ex-England captain and all-time great). Coming to New Zealand to play rugby didn't do Martin any harm, did it?

I am a season ticket holder at the Auckland Blues — yes, I can hear the boos from here. My son is a Crusaders fan.

What were your previous career positions held, going right back to your first job after completing your education/studies through to any senior management/chief executive roles before moving on to PlaceMakers?

I left education at the height of the late 1980s UK recession. There were four million people out of work and the deputy prime minister came on TV and said "get on your bike and get a job". The Midlands was an employment train wreck so I moved to Oxford where my brother was studying for a degree.

I had two first-time jobs, all at the same time, so I could afford to rent a room in expensive Oxford. I worked on the shop floor for the English equivalent of New World and worked at a dairy on weekends. 84 hours per week! I was a tired boy, but I learned a lot about customer service and management

I moved to branch operator/management in food retailing, then DIY, regional management, project management, and procurement. Finally I became Head of Trade for B&Q, an \$8 billion DIY/trade business in the UK.

After seven years at B&Q I was headhunted by Wolseley Group, one of the world's largest distributors. I became the managing director of a division for them after a few years as a trading director and commercial director for their commercial and industrial division.

Finally, I was just about to emigrate to Wolseley, USA, to take up a strategic role when Fletcher Building came calling.

How long have you been at Fletcher Building, and what was it that most attracted you to your current position at the company?

I joined Fletcher Building as chief executive of New Zealand Distribution (NZD) about six months ago. Fletcher Building is a well-respected global company. Being vertically integrated they have a different model which is exciting to work in. The company has a great history in New Zealand, and I am proud to say that I work for them. After all, I moved 18,000km to join them!

How would you describe your management/communication style? How do you manage conflict, how do you reward excellent work performance and how do you manage poor performance?

I would like to think that I am down to earth and very customer-centric. My father was a bricklayer and so was my granddad. In fact, my line are all tradesmen going back to 1799!

I believe in creating simple and clear strategies that are built around the customer.

I actually like conflict, provided it is positive and focuses on serving the customer better. I believe in delegation and the sharing of best practice.

wreck' to Fletchers CE position



Dean Fradley, chief executive New Zealand Distribution — PlaceMakers and Mico.

Every two weeks we get the branch operators on a conference call to give us feedback. Our branch operators have been around a while and they have valuable insights — they are the closest people in the organisation to our customers, so engagement and communication is vital.

I am also getting around the branch network and getting a real grass roots feel for things.

What do you think is your most important trait/commodity? What do you attribute your success to?

I am absolutely focused on customer service. A customer will never leave you for being too professional or too good at service. I accept that price will always be a common denominator but best-in-class service drives customer loyalty.

I know how hard our customers work, and we must be excellent every day in helping them succeed.

I think it is too early to talk of success — but I am intolerant of mediocrity. The All Blacks do not accept being average, and I like the Kiwi culture in that sense — to be dynamic and competitive. I think back to those early years, and I have never lost my will to be better, to grow and build better teams, businesses and better customer service. To make a real difference to an industry.

NZD employs 2500 people, and we have a duty of care to be an employer of choice. We have 70,000 core customers and we are only successful if they are.

What is your personal work ethic, and how do you think this affects the company culture?

Similar to the above — FB is “can do”, NZD is “can do”. Our customers are “can do”. I like to work at pace and focus on what needs doing.

What is your priority for PlaceMakers and Mico in the context of the current state of the New Zealand construction industry. What is the biggest challenge you feel your company faces, and how do you inspire your employees to meet it head on?

PlaceMakers and Mico operate in a very competitive market. We recognise that the customer has a choice of where to buy from. So operationally and tactically we need to consistently be excellent at customer service — DIFOTIS (Delivery In Full On Time In Spec), frame and truss solutions, product availability and technical knowledge.

There is a recession on average every 8.5 years so we must innovate and create solutions in our market, with our teams and customers.

Going up and down with a cyclical market is not an option. We all need to find the right balance to outperform the market and deliver a sustainable business model that is robust for our customers, our teams and the shareholder.

I think New Zealand is seeing real globalisation for the first time, and global players are seeing New Zealand as an attractive market, product and people-wise. Being “a long way” from the rest of the world may not be the natural defence that it used to be. So we must innovate to survive and grow.

I also think the digital trend will enter our markets as customers want to choose how they buy from us. In the USA, 30% of plumbing sales are online. It is just a matter of time before we see a similar trend here, if our customers want it.

If you could instantly change any aspect of doing business in the New Zealand construction industry, what would it be?

I sincerely believe we have some of the best customers in the world, so I would not change a thing there. I like having competition as it makes us better and stronger. So I will cheekily say “does every house built really have to be so customised and bespoke?”

Only kidding — it's too early to wish for changes. Don't forget I have just moved out of a triple recession in the UK.

Stratum's affordable and low damage dwellings in Wellington

By Roy Kane

To meet the rising demand for residential property in Wellington, Stratum Management Ltd has built a number of multi-storey buildings.

The 15-level Elevate Apartments on Taranaki Street features a seismically structured, low-damage building that is new to Stratum.

While gathering our material, we noticed that Stratum tends to engage the same team of subcontractors for large projects, quite consistently — Architecture + is the preferred architect, Aurecon is the preferred engineer, MJH Engineering is the preferred structural steel fabricator and erector, and the project manager is invariably Stratum's own Craig Lyford.

The Canterbury earthquakes in Christchurch have highlighted the need for building structures that not only protect the lives of occupants but also offer resilience against the building's loss of function.

In the Elevate building, Stratum Management has demonstrated a readiness to implement modern, low-damage design systems.

Its rocking concentrically-braced frames (CBFs) with Ringfeder springs, and Moment Resisting Frames (MRFs) with Sliding Hinge Joints (SHJs) are, however, not new to Wellington.

They had been used by Aurecon as the seismic resisting structural systems in the Victoria University of Wellington Te Puni accommodation project.

Although Te Puni had different architects (Architectus), the same team that successfully completed Te Puni was working together again on Elevate but directed by Stratum as the developer, with Architecture + as the architects.

Transverse bracing

The base hinge consists of pre-stressed Ringfeder friction springs and a vertically orientated sliding friction connection. This system allows controlled holding down of the CBFs, which limits the lateral loads to be resisted by the structure. Thus the base connection to the CBF is the strength limiting element, and this prevents damage from occurring in the primary structural elements.

By comparison, a traditional CBF relies on yielding of the braces to impart ductility into the structure, which results in inelastic deformation of the structural system. Post earthquake, significant repairs are required.

The Ringfeder springs enable the connection to be preloaded so as to set the performance criteria at which "lift off" occurs. The friction sliding connection has two functions:

- It provides additional resistance to uplift, which reduces the size of the Ringfeder, and
- It provides resistance during the downward motion of the column, reducing the impact loads from the column.



An artist's render of the Elevate Apartments. Image: Architecture +



The holding down bolts, showing the relative size of a mobile phone.



Ringfeder springs still in protective wrapping.



The unwrapped Ringfeder spring.

Under a design-level seismic event, the tension columns of the CBFs are designed to uplift. Uplift will occur once the spring's pre-stress, sliding friction connection and gravity loads are overcome.

As the column begins to uplift, the Ringfeder spring is compressed between the base plate and a cover plate.

This system limits seismic forces in the primary structure as well as in the foundation, and prevents damage occurring in structural elements and connections. The benefit is that post-earthquake, the building can be occupied quickly and safely.

Longitudinal bracing

The longitudinal bracing system consists of Moment Resisting Frames and uses Sliding Hinge Joints. One of the main advantages of this form of construction is that stiffness of the beam can be de-coupled from its strength.

Larger beam sections can be chosen to limit seismic drifts. The efficiencies achieved result in savings in the foundation sizes required.

The Sliding Hinge Joint is essentially a semi-rigid beam-column connection that provides a

Continued page 36



Intensive bolting of a frame with Sliding Hinge Joints.

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From page 35

rotational pin on the top flange and a sliding detail on the bottom flange. It works when the moment demand from seismic actions induces beam flange forces that exceed the sliding resistance of the bottom flange and web-plate bolts, at which point the joint will slide, allowing rotation to occur about the top flange.

Once the imposed moment reduces, the sliding stops and the joint becomes rigid. By positioning the pin at the top flange, any undesirable floor slab participation can be minimised.

The design ensures that at the design based earthquake, inelastic rotation occurs within the slotted holes, equating to only minimum joint degradation and minor slab cracking.

Complex geometry

Because of Stratum's intention to provide maximum residential layouts, the angles of the beam lines and the locations of the columns resulted in the building having a complex geometry. Even more complex is the car park helix, which twists and rotates through the first five levels.

There was considerable interaction between main contractor Stratum Management and steelwork fabricator MJH Engineering, who also created detailed workshop drawings for the structural steel.

Working from Revit software, Aurecon and MJH produced an accurate 3D model of the building in Tekla software, which enabled structural clashes to be avoided.

Gravity system

Composite steel tray floor systems span in the transverse direction between the MRFs.

Because the MRFs are closely spaced, very few gravity-only beams are required to resist gravity loads. The gravity load is transferred to the MRF and CBF columns and into the foundation.

One advantage of using the SHJ in the MRFs is that the concrete floor can be poured prior to the SHJs being tightened. This results in a beam that is effectively simply supported.

The SHJs can be tightened once the floor is poured. This enables a simplification of the SHJs and reduces the connection size. The SHJ can be designed for only seismically-induced moments.

Column to pile connection

The foundation system consists of 40m x 1.2m diameter reinforced concrete bored piles. These are situated below the CBF columns and the NRC columns at a depth of 20m. A 300mm reinforced concrete diaphragm allows the distribution of lateral loads amongst the piles.

The connection of the CBF column to the RC pile needs to be robust enough to resist the ultimate strength of the base connection. A cast-in UC member with shear studs is embedded approximately two metres into the pile, and transfers tension and compression forces into the pile.

Ringfeder and sliding joint CBF base connection

The Ringfeder spring is a compression-only spring. Upon compression, the outer ring is forced outwards and the inner ring is forced inwards. At all instances, the rings remain in the elastic range. Lock-up occurs when the displacement capacity of the rings is exhausted, effectively resulting in a solid pack of steel rings.



Residents in these apartments will have splendid views of the city and its harbour.



An MJH Engineering rigger works at height with his safety harness attached to the beam.



Cloaked in blue safety netting, Elevate prepares for its fit-out.

The spring is compressed between two plates using a high-strength large diameter turned down bolt. The bottom plate is connected to the CBF column while the top plate is free.

As seismic axial tension forces develop in the CBF column, gravity loads are overcome, and further hold down is provided by the pre-stress of the springs. Once the level of pre-stress is reached, the sliding joint will provide the next tier of resistance until the sliding force is reached.

At this point the column will begin to uplift. As it does, the spring provides additional resistance to uplift. Typically, the Ringfeder spring is pre-stressed to about 50% of its ultimate capacity, so once the spring begins to lift there is approximately another 50% of reserve capacity.

The purpose of the turned down bolt is to act as a fuse. The diameter of the turned down length is chosen so that the bolt yields prior to the lock-up of the spring. This is to prevent damage occurring to the spring and to the building structure.

Three months into the Elevate Apartments project, Stratum added a new project — Nouvo Apartments. How would the team cope?

Stratum project manager Craig Lyford, and his counterpart at MJH, Mark Shirtliff, weren't fazed.

"As we do with all Stratum projects, we render the engineer drawings in 3D Tekla, because this facilitates co-ordinating the work of the follow-on trades," Mr Shirtliff says.

"So we simply added the new project into our production schedule, treating it more like an additional package of Elevate rather than a different project."

"But of course it was, and on its own separate site. Nouvo Apartments is topped off at five storeys, and its townhouses have only two. But Stratum was committed to showing that it can meet the affordability needs of a wide range of residents."

Allan Wright, a director of Architecture +, which had also designed Elevate, explains how the Nouvo concept developed in response to both height and proximity restrictions.

"Situated on the cusp of the city between Rugby and Alfred Streets, Nouvo is a neighbour to two Wellington landmarks — the Basin Reserve and Government House," Mr Wright says.

"The latter is protected from close observation by proximity and height constraints. Our solution was to align the five-storey apartments in a north-south, double-loaded corridor, while the low-rise townhouses were to face east-west — that is, parallel to the Government House boundary.

"This offers two different styles of accommodation — outside space with "feet-on-the-ground" for the townhouse dwellers, and in the loftier apartments, which have no outside space, the wide frontage along the bedroom areas have windows designed to admit the premium views and



Some of the Stratum Management projects built by the same team.



Working in front of the Nouvo apartment blocks A and B is a pendant-driven self-erecting tower crane.

aspects."

To summarise — the project consists of four blocks — A, B, C and D. Blocks A and B are five-storey apartment buildings with 30 and 12 apartments respectively. Blocks C and D are two-storey townhouses with five and six townhouses respectively.

A and B are structural steel-framed buildings, with the top storey being constructed out of timber, using plywood walls for bracing. C and D are timber-framed, with structural steel portals for lateral bracing at level one.

Once again, Stratum subcontracted Aurecon as the consulting engineers on the project. Senior structural engineer Malcolm McGechie explains that the steel-framed blocks A and B share the same access core, with stairs and an elevator.

"There is a seismic gap located in the corridor adjacent to the stairs between the two blocks," Mr McGechie says.

"The lateral load resisting systems are the same for each block, with Moment Resisting Frames (MRFs) in the longitudinal direction and Eccentrically Braced Frames (EBFs) in the transverse direction."

Aurecon design engineer Phil Don incorporated Sliding Hinge Joints in the MRFs to provide a low damage solution in the longitudinal direction. In a major seismic event, damage is localised to the beam/column joint, which can be more easily remedied than damage to the main structural members.

Around Wellington, many Stratum Management buildings take their places among the city's best known landmarks (see pic at left).

From this vantage point we can see Elevate

From page 37

Apartments under construction, but to the left are Monument and Piermont Apartments and to the right Portal Apartments.

For all of these, Stratum has engaged the same architects (Architecture +), the same engineers (Aurecon) and the same structural steel fabricator and erector (MJH Engineering).

Asked why, Stratum development manager Robert Clemens says when you have good subcontractors, you get to understand how they work as they, in turn, appreciate how we work.

"It leads to consistency because we realise that we share the same philosophy and the same approach to achieving objectives. There's a loyalty that grows stronger with each success, but there's also a great sense of professional fun."

How then do you keep your subcontractors competitive against their own rivals in the marketplace?

"We have our own quantity surveyor so we can check what each project should be costing. We can then negotiate a fair deal for our subcontractors, ensuring that they are happy

to come to the party," Mr Clemens says.

"But it's never just about the price. We know we can count on our team to make sure the project always finishes on time. There's no point in agreeing on a margin if it gets chewed up by a programme overrun.

"And when it's time for Wellington City Council to issue compliance certificates, we find that as they too have come to recognise the high standards that our team achieves, so they can feel confident about our being consistent."

How could Elevate and Nouvo be run concurrently without a loss in efficiency?

"We often run more than one project at the same time. To maintain efficiency we talk to our subcontractors and give them all the information they need to make sure they are geared up.

"Wellington doesn't have the same stress that you find in Auckland and Christchurch today. So we are looking for more opportunities, and Stratum always strives to improve its performance. We don't preoccupy ourselves with corporate things like vision statements. We prefer to be hands on, and act with a clear social conscience.

"When the people who live in our buildings say

they are satisfied, we take that as confirmation that we, and all of the subcontractors on our team, are contributing to the social fabric of Wellington."

MJH Engineering managing director Malcolm Hammond says he regards Stratum Management as "ahead of their time, especially in their use of 3D modelling systems that enable accuracy".

"With Tekla we can plan ahead and know what's coming while at the same time detailing in advance for the follow-on trades," Mr Hammond says.

"And Stratum Management knows that design resolution need not always depend on the engineer — it's often dealt with by allowing the fabricator to suggest details that can be incorporated in the early stages of the engineer's design.

"Because Stratum Management knows the value of time, they appreciate all those who can help them make the best use of it."

Note: Thanks to Aurecon structural engineer J D Tait, engineering consultant G K Sidwell and technical director J F Finnegan for their permission to quote and paraphrase from their engineering report on the Elevate Apartments.



Double-glazing of the Nouvo Apartments will keep down the noise of traffic to comply with Wellington City Council's regulations



Blocks A and B, with a start made on the townhouses in the foreground.



A neat example of a Sliding Hinge Joint made by MJH Engineering Ltd.



An artist's render of the townhouses, with the apartments in the background.

BT's Back in Time

Welcome to Back in Time, where we delve into our magazine archives and discover what was making news way back when . . .

20 years ago:

- TVNZ's *Fair Go* came under fire from NZ Master Builders Federation chief executive Trevor Allsebrook for taking delight in reporting people's misery.

Mr Allsebrook noted an item where a cowboy builder offered to do alterations or cash then, halfway through a job, said he needed more to complete the job.

"Stories such as this are easy to find, but *Fair Go* does nothing to stop people falling into this pit. Indeed, it relishes finding people in the pit," Mr Allsebrook said.

15 years ago:

- The BCITO's new programme for training carpentry apprentices was launched at the Beehive by Tertiary Education Minister Max Bradford. Thirty-eight local launches also took place around the country.

The BCITO had replaced the traditional polytechnic block course theory training with an integrated training in employment programme overseen by apprentices' employers.

10 years ago:

- New Zealand's oldest spa resort was to undergo a \$125 million transformation. Waiwera Thermal Resort and Spa, which dates back to 1875, was to be redeveloped in stages over a five-year period.

The redevelopment plan included a four-star hotel, international-standard spa wellness centre, conference facilities and "enhanced water experiences". Stage one also involved the building of 120 apartment units.

Staffing numbers were expected to rise from 150 to close to 400 once the redevelopment was complete.

5 years ago:

- Registered Master Builders company Leighs Construction headed off to yet another remote location, this time to East Timor, to build the New Zealand embassy complex for the New Zealand Government.

Managing director Anthony Leighs said the company identified the design and build project as an attractive opportunity and were excited by the challenges it held.

The complex included a chancery building, staff residence building, ancillary building, swimming pool and guardhouse all located within a high security perimeter wall.

Not surprisingly, there were a number of logistical hurdles to negotiate to complete the greenfields development. One of these was the time — Dili time — it took for things to happen, from the supply of goods and equipment to the painfully slow customs processes. Not to mention the two weeks it could take to receive a courier.

Most of the shops also closed between 12-2.30pm daily, so it took a bit of time to get in sync with the local siesta time.



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[^]Metal grate options are sold as a complete channel and grate unit

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'Green' adhesive delivers fast initial grab

Nailbond FAST is one of Sika's new generation of low VOC, or no solvent, construction adhesives.

This water-based, multi-purpose adhesive delivers fast initial grab and high bond strength. Builders get the same job done in the same time, but with no solvent to breathe, handle or taint the surrounding environment.

Nailbond FAST is also Green Building Council-compliant, having been independently tested as a general purpose construction adhesive for the purpose of Green Star rating.

No solvents are added or used during the manufacture of the product.

The Sika range of Nailbond adhesives have been used in the New Zealand construction industry for more than 40 years.

For more information visit
http://nzi.sika.com/en/solutions_products/02/02a012/02a012sa03.html



Affordable kitchen sink range released

Englefield has just released a range of very affordable kitchen sinks — a seemingly unlikely accompaniment to their existing bathroomware range.

Not so — Englefield has sold kitchen tapware for many years, so this is an obvious next step.

All sink models are produced from high quality Grade 304 brushed stainless steel, and are sound dampened to eliminate irritating noisy clatter. Stainless steel wastes with drainer basket and fixing kits are all included.

There are two ranges. The mainly "under counter installation" Cabriole has a modern, crisp, geometric design, with 90° square corner bowls.

It has 1mm thick bowls and 1.2mm draining board. The latter is only available with the Elite model and comes in left or right hand versions.

The second range is the Clip, with gently rounded bowl and fanned draining boards, all made from 0.8mm thick stainless steel and all "over counter installation".



These sinks bring the traditional Englefield values of superb quality, great design and affordable prices right into the kitchen.

They are available at most leading building and plumbing merchants.

For more information visit www.englefield.co.nz.

Lots of experience goes into leading site saw

From Germany, Avola are the market leaders in circular building site saws, with more than 50 years' experience.

The TZV315W offers a solid, dependable and portable saw. Features include:

- Adjustable cross and rip fences, hinged
- The machine frame is completely galvanised
- Strong, torsion-resistant frame
- Blade rise, fall and tilt
- Table extension 1030 x 750mm (optional)
- Wheelkit (optional)

The Avola site saw is covered by a full 12-month warranty, and in New Zealand is available exclusively from W & R Jacks.

For more information visit
www.jacks.co.nz/page/avola_site_saw_tzv315w.html.



47% bigger tissues for real men

Tired of girl-size tissues in pretty boxes?

Here's the answer — new Kleenex Mansize tissues. Just right for the kids' spills, mud on the dog, dip stick in the car, sweat at the gym, fish debris in the boat and those man-size runny noses.

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www.kleenex.com.au.



What is the definition of 'building work'?

Timothy Bates and Katrin Saran Lee of Auckland law firm Legal Vision examine a case where the court was required to consider whether a representation made by a supplier fell within the definition of "building work".



This article examines a recent High Court decision (*GPE Holdings Ltd v Tile 'N' Style Ltd v Ors [2014] NZHC 802*) in which the High Court was required to consider (on appeal), whether a representation made by a building products supplier fell within the definition of "building work", in relation to determining the limitation period of the claim.

Overview

This claim before the High Court was an appeal of a decision in the District Court. The appellant, being GPE Holdings Ltd (GPE) was a property developer.

The units in the Greta Point, Wellington, complex to which the appeal relates were completed between January 31, 2001, and June 29, 2001. The proceedings in relation to this appeal commenced on April 21, 2011.

BASF New Zealand Ltd (BASF), being the third respondent in this subject proceeding, imported and distributed building products. In or around 2000, GPE was approached by BASF for the purposes of convincing GPE to use its product (namely HLM 5000) instead of Butynol (which had been specified in the plans for the complex at the time BASF approached GPE) on the decks and roofs of the complex.

BASF represented (among the other representations) that its product could be used as a waterproof sealant on decks that were to be constructed on the outside of each apartment unit of the complex, which were found to be misrepresentations.

The act in this case (being the misrepresentations made by BASF) occurred in 2000. Accordingly, if those misrepresentations by BASF were considered to be in connection to "building work", then section 393(2) of the Building Act 2004 would apply, which meant that any civil proceedings relating to those representations would be barred, since it would have been more than 10 years from when the representations were made to when the proceedings were commenced in April 2011.

In the alternative, if those representations were not considered to be in connection to "building work", then the 10-year time limit in section 393(2) of the Act would not apply.

Issue

The issue of appeal was whether the representations made by BASF fell within the definition of "building work" in section 7 of the Building Act 2004 ("the Act").

If the representations made by BASF were "building work", then GPE's proceedings against BASF would be barred by the 10-year time limit set out in section 393(2) of the Act.

What is "building work"?

- Section 7 of the Act:

In deciding if BASF's representations fell within the definition of "building work", Justice Collins first referred to section 7 of the Act which provides that "building work" means "work for, or in connection with, the construction, alteration, demolition, or removal of a building". The term "in connection with" in this definition is pivotal in this case.

It was held that the words "in connection with" have a wide meaning requiring merely a link or relationship between one thing (A) and another (B). Applying that concept to the current case, in order for the work (A) to be connected with the construction, alteration, demolition or removal of a building (B), BASF performing (A)

must have had (B) in mind. This means that at the very least, that plans and designs for the construction of (B) have to be in existence.

- Policies underpinning and the purpose of the definition

Justice Collins noted that Parliament intended that the acts or omissions of those involved in all phases of the construction of buildings would be protected from civil liability if proceedings were commenced 10 years after the act or omission in question.

That objective was achieved by ensuring the definition of building work was broad, and covered all work in connection with the construction, alterations, demolition or removal of a building.

- Context in which BASF made the representations

It should be noted that the question as to what is "building work" within the meaning of section 7 of the Act is dependent on the facts.

In this case, the context in which BASF made its representations involved buildings which had been planned or designed. At least one unit had been completed and a deck had been constructed to "flood test" BASF's product.

As a result, Justice Collins held that BASF's representations were work in connection with the construction of a building and, thus, fell within the definition of "building work".

This meant that the 10-year limitation period applied. Accordingly, the claim as against BASF could not be pursued because it was out of time.

Conclusion

This decision illustrates the point that representations made in connection with the construction, alteration, demolition or removal of a building which had been planned or designed are likely to fall within the definition of "building work" under section 7 of the Act — which would trigger the 10-year time limit in section 393(2) of the Act.

Note: This article is not intended to be legal advice (nor a substitute for legal advice). No responsibility or liability is accepted by Legal Vision or *Building Today* to anyone who relies on the information contained in this article.



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A failed marriage

Architect Don Bunting examines the changing relationships among members of the design and construction industries.

They tiptoe around each other like partners in a failed marriage.

Relationships among members of the design and construction industries have never been as poor as they are today. Just to be quite clear, I'm talking about collaboration and not connection on a more personal level.

Today, members of our industry tend to tiptoe around each other like partners in a failed marriage. No one seems to know or care who should take the lead role, and no one seems to care that relationships between industry members worsen every year.

Think about the connection, or lack of it, between designers and Building Consent Authorities (BCAs). Building consent fees often surpass the fees being paid to the designer, and confrontation has become the norm.

A veritable raft of requests for information (RFIs) are used by consent officials to create a barrier between the parties, and are a convenient means of stretching a supposedly set consent approval time frame.

Prior to the 1980s, architects working on a major project in Auckland would sit down with a designated Auckland City manager to discuss and debate the proposed project, prior to completion of permit (now consent) documents. This ensured there were no major surprises either way.

Sure, there were debates with counter staff on the interpretation of Standards or bylaws, but the exchanges tended to be open and, at least, respectful of each other's role.

Relationship change

Arguably the greatest relationship change has occurred over recent years between designers and contractors/subcontractors. At a time when collaboration and co-operation should be the new industry benchmarks — if we are to take advantage of technological change — it is concerning that, increasingly, designers and those constructing a building may never even meet, let alone collaborate.

Over the past 50 years there have been numerous changes in the way projects are commissioned, designed, approved, contracted and built.

There have also been, in parallel with these

changes, significant shifts in who influences who, and which player now controls the only thing that matters — the budget. The person controlling project funding, whether they are the right person to lead or not, automatically rules the roost.

A further significant change is who, if anyone, holds the leadership role in a construction project.

Not that long ago, who assumed the leadership role was clear-cut. While not always universally accepted, the architect was usually appointed as the client's representative and, therefore, was seen as the logical person to lead the design/construction team.

Why? Because the architect not only had the ear of the client, but was supposedly trained as a project leader. Whether this was correct or logical was never discussed, but at least it allowed the project team to forget about who should or shouldn't be in charge, and to focus on producing the very best building for the very best price.

With an on-site clerk of works and site engineer to manage project quality and an off-site quantity surveyor to manage the contract finances, it was quite difficult for a project in the 1960s to go too badly wrong.

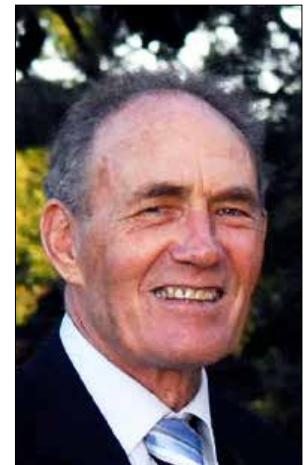
For those entering the industry post-1980, the idea that the architect should be the logical leader of the design and construction team simply did not make sense any more.

This change in view began a little earlier, with the appearance in the 1970s of quasi-finance companies realising they could make money by borrowing off the general public, building a building very cheaply and then flogging it off to an investment company or corporate.

That all ended in tears in 1976, before reappearing in a different form, with design/build and "the developer" in the 1980s. And we all know how that ended up.

A more important shift in how projects were promoted and built was the move by larger corporates away from property ownership. By the 1980s most corporates decided they could do a lot better with available funds than owning real estate.

Contractual forms have also changed, with a growing emphasis on control from outside the design and construction team.



In many cases, the project instigator is neither the intended end user of the building, nor a construction company but, more and more, a company with no interest in constructing, occupying or owning the resulting project.

Another key issue was the appearance, at first via design/build companies but later as a separate professional group, of the project manager.

Why the existing professions — architects, engineers and quantity surveyors — did not see this as a new, important skill set remains a mystery, and has led to a loss of status for those who were once the leading construction professionals.

Some quantity surveyors made an attempt to occupy this space, but the two major professional groups — architects and engineers — failed miserably, and are still suffering the consequences.

Quiet reflection

As our industry stumbles from one potential or possible disaster to another — and let's be blunt, the leaky buildings debacle is, and remains, a disaster — a bit of quiet reflection on why our industry remains the most inefficient and ineffective might be justified.

Yes, we live in a different world than existed in the 1960s and 1970s, and attitudes have changed around building ownership that mean new approaches to building procurement are needed. I'm just not sure that current procurement methods are the right ones.

To illustrate how much has changed, from 1970 to 1990 I received and completed 100 commissions from a single corporate client, all as appointed leader of the design and construction team, and all completed under an invited tender approach.

As Willie Nelson sings: "Ain't it funny how time slips away?"

Tekapo's astronomical analemma

Dr Kerry Rodgers has clearly been out in the midday sun for far too long . . .

A **analemma**: a plot or graph of the position of the sun in the sky at a certain time of day (as noon) at one locale measured throughout the year that has the shape of a figure 8; also: a scale (as on a globe or sundial) based on such a plot that shows the sun's position for each day of the year or that allows local mean time to be determined — Merriam-Webster Dictionary



Tekapo is well known for its observatories that sit astride Mt John. If you are unfamiliar check out www.phys.canterbury.ac.nz/research/mt_john.

Atop Mt John you will also find the Astro Cafe. It sells great ham sandwiches and top coffee. Both can be enjoyed on



The sundial-analemma under construction in Tekapo.

a summer's day while contemplating the strikingly-blue waters of the glacial lake below.

Astronomy has been part and parcel of Tekapo since 1965. Last year the town held its first Starlight Festival. It celebrated the recent international recognition given to the quality of the night sky in the Mackenzie Basin.

Building Today readers may be unaware that we now have a dark sky reserve — the 4300 sq km Aoraki-Mackenzie. It is the largest such reserve in the world. Mackenzieites will tell you it's the best.

On the lake's shore behind Tekapo's shops the new reserve has been celebrated with a fun project: a large sundial and accompanying analemma.

The project's centrepiece is a 14m diameter concrete and stone sundial. The gnomon of the sundial, the bit that casts the shadow, is provided by a person standing in the correct position within the circle for the time of the year. That position is provided by an analemma that decorates the breast of a mosaicked Kea within the circle.

When a person is standing in the right spot on the analemma, their shadow shows the true solar time on the sundial. This time is 40 minutes later than New Zealand Standard Time.

NZST is determined by the start of our international time zone that lies some 10 degrees of longitude away to the east. It takes the sun 40 minutes to travel from there to Tekapo. Of course, during the summer, the true time at Tekapo will be an hour and 40 minutes later than New Zealand Summer Time.



The mosaicked Kea.

For example, true solar noon at Tekapo occurs at 12.40 NZST. This is when the sun is at its zenith above the Tekapo analemma and sundial.

If that proves a little difficult to explain to the family, the sundial also contains two solar challenges.

At the centre of the sundial is a small yellow dot. This represents the sun.

Scattered throughout Tekapo Domain are markers representing the planets of our solar system. Their distances from the sundial's centre are at the same scale as the diameter of yellow sun dot. Each marker lies along a solar system walk within the domain.

Children, and maybe the occasional curious adult, can walk the walk to locate all the planets at their right scale distances from the yellow sun dot.



Pouring the final concrete.

But wait, there's more! For a bigger challenge, the full 14 metre concrete circle can be considered as representing our sun. It does so at a scale of 1:100,000,000. At this scale, markers for the planets of our solar system need to be scattered across the Mackenzie Basin.

You can find one on top of Mt John. Another is on the Cass River Bridge. There is one on the south-western shore of Lake Tekapo, another on the shore of Lake Pukaki, and a third at the Lake Benmore Dam lookout. Locating these could keep older kids quiet for a couple of days.

The project has been the baby of Tekapo resident Freidl Hale, with support from a team of experts.

Construction started last year after determining appropriate solar system scales. The design was then laid out, a foundation hole dug, the true north-south line determined, seven truckloads of base-course placed, reinforcing mesh tied in and a base concrete pad poured.

Next, the enclosing stone masonry was added and polystyrene templates for tiles and the Kea placed to allow the concrete to be topped-up. Finally the templates were replaced with tiles and mosaics.



Templates after the final pour.



Installing the tiles.

Next time you are travelling along State Highway 8, take an analemma-break at Tekapo. If the kids are with you take them to the top of Mt John to see if they can find the planet marker — while you enjoy a coffee and ham sandwich and contemplate those deliciously blue waters.

Retirement options and what to think about

Terry Sage of Trades Coaching New Zealand outlines some of the options to consider when thinking about your retirement years.

We spoke about retirement a few months ago and I have sent out quite a few spreadsheets for people to answer the dreaded question: Will I have enough to survive those wondrous years of retired bliss?

I have checked the NZ Statistics web site and there has not been a marked increase of trade suicides over the past eight weeks so I am comfortable in the belief that I have not added to the national mortality rate.

That being said, it brings us back to the question of how do we earn an income when we stop work? For some, that is not an issue as they have been very smart in managing their money over the years and are soundly financially secure. Were they smart or incredibly lucky? Who cares (they don't) — my hat goes off to them for gaining the position in life most people crave.

Then we come to the larger group of people who have worked so very hard all their lives, got to 60-plus, are mortgage-free, own one, two or more properties, have had a comfortable life and are now wondering what the best course of action for the next 25 or so years is.



Can they live off the rental income? Should they sell some properties and live off the invested funds interest and some rental income? Or cash up the lot, downsize the family home, have one last round the world adventure and then settle down to a moderate life living off the remaining invested funds interest?

There is not a definitive answer to this scenario without knowing all the numbers and the lifestyle that is desired (for example, one chai latte a day or one a week?).

Now comes another rather large group — worked very hard, played very hard, two or more families to support, halved the assets more than once and now got to 60-plus with a "holy explicit" what do I do now? And, hopefully, without a wallet full of blame for the other half or many halves.

So what do you people do? Well, if you can't find a rich new partner to look after you, I guess we will have to find you a job that's a little easier on the body than crawling under floor boards.

Before we list all the jobs available (and we're not going to) to the last group, let's look at the jobs people have come from. If you are a business owner, have you got something to sell or is it all based on and around you?

If it is then that's not the smartest way to structure a business to gain maximum sales potential. If it isn't then, great, it's saleable or even open to a management structure to give you a passive income.

There's many scenarios around either option and too many to list here, but they may be well worth exploring. So where can an old, tired, broke tradie seek gainful employment? Outside of the industry, anywhere they like if they get lucky. Within the industry — now that gets a little harder.

There are roles as council inspectors, insurance assessors and the list continues in the same vein — but can you trade the tool belt for paperwork? You could become a building magazine columnist but don't expect to eat, drink or own a pre-pay phone.

Of course, if you're good looking, have great communication skills, have a desire to earn a great income and want to give back to an industry that has supported you for decades, you could always become a Trades Coaching New Zealand trades coach.

Now there's an idea. Call me on 09 945 4880.

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Dwellings	\$727,315,000
Domestic Outbuildings	\$11,498,000
Total Residential	\$738,813,000
Non-residential	\$401,333,000
Total All Buildings	\$1,140,146,000
Non-building Construction	\$32,917,000
Total Authorisations	\$1,173,063,000

Number of new dwellings consented

	Apr 2014	Mar 2014	Apr 2013		Apr 2014	Mar 2014	Apr 2013
Far North District	13	13	11	Horowhenua District	7	8	2
Whangarei District	11	35	37	Kapiti Coast District	10	17	71
Kaipara District	11	10	4	Porirua City	18	12	11
Rodney District	81	65	69	Upper Hutt City	26	16	8
North Shore City	180	58	63	Lower Hutt City	14	21	16
Waitakere City	136	78	81	Wellington City	69	24	115
Auckland City	129	164	85	Masterton District	2	3	7
Manukau City	113	117	69	Carterton District	5	7	5
Papakura District	26	61	42	South Wairarapa District	5	8	5
Franklin District	43	33	30	Tasman District	15	20	21
Thames-Coromandel District	18	18	14	Nelson City	21	14	30
Hauraki District	3	6	5	Marlborough District	11	19	17
Waikato District	27	23	31	Kaikoura District	1	5	3
Matamata-Piako District	13	11	10	Buller District	6	4	9
Hamilton City	144	39	82	Grey District	7	2	3
Waipa District	34	96	32	Westland District	3	2	0
Otorohanga District	0	4	5	Hurunui District	11	14	11
South Waikato District	0	5	1	Waimakariri District	68	98	80
Waitomo District	0	0	1	Christchurch City	356	342	146
Taupo District	10	14	13	Selwyn District	89	102	111
Western Bay of Plenty District	18	24	35	Ashburton District	10	16	19
Tauranga City	63	91	45	Timaru District	15	21	16
Rotorua District	6	6	17	Mackenzie District	4	3	4
Whakatane District	2	1	9	Waimate District	0	3	7
Kawerau District	1	0	0	Chatham Islands Territory	0	0	0
Opotiki District	0	0	1	Waitaki District	5	5	4
Gisborne District	6	6	16	Central Otago District	13	13	11
Wairoa District	1	1	0	Queenstown-Lakes District	43	47	35
Hastings District	15	13	14	Dunedin City	26	48	61
Napier City	7	14	7	Clutha District	4	5	4
Central Hawke's Bay District	3	3	4	Southland District	9	6	4
New Plymouth District	39	32	22	Gore District	1	2	5
Stratford District	1	0	1	Invercargill City	9	11	7
South Taranaki District	3	5	10	Area Outside TA	0	0	0
Ruapehu District	0	0	5	Total	2082	1999	1755
Wanganui District	4	5	10	• Based on 2006 census areas			
Rangitikei District	2	3	3	• Each dwelling unit in a housing project is counted separately			
Manawatu District	13	10	6	• Figures in these tables may differ from published statistics			
Palmerston North City	22	13	13				
Tararua District	1	1	4				

Source: Statistics New Zealand

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Date:

SPEND OVER \$600^(EXCL GST) ON 13MM GIB® STANDARD PLASTERBOARD & GIB® RONDO METAL BATTENS AND GET A FREE DUVET*:



***Duvet Terms and Conditions :** 1. The promotion period starts on 1 June 2014 and ends on 30 June 2014. 2. To be eligible for the reward, a qualifying customer must, during the promotion period, order and be invoiced for over \$600 (excluding GST) on any 13mm GIB® Standard Plasterboard and Rondo® metal battens from Carters. 3. A qualifying customer will receive one free Queen-sized duvet. 4. Promotion is open to trade account holders only. 5. Entry is automatic on invoices raised for trade account holders. 6. Qualifiers are based on invoice date not order date. 7. To be eligible for the reward, qualifying customers must meet Carters' Standard Credit Criteria and have complied with Carters' Standard Terms and Conditions of Sale, both during the promotion period and up until the reward is received. 8. A maximum of one reward per customer. 9. The actual reward may differ slightly from that pictured. 10. Limited stocks of reward available, while stocks last. 11. An alternative reward may be offered at the discretion of Carters. 12. The reward cannot be substituted for cash or alternatives. 13. The manufacturer of this reward is not associated with this promotion. 14. Offer not valid with any other promotion running concurrently. 15. Staff of Carter Holt Harvey Limited are ineligible to qualify. 16. The reward is distributed after the promotion is completed and the applicable account is paid. 17. Carters reserves the right to amend, terminate or suspend any aspect of the promotion (including the reward) at any time in its sole discretion.